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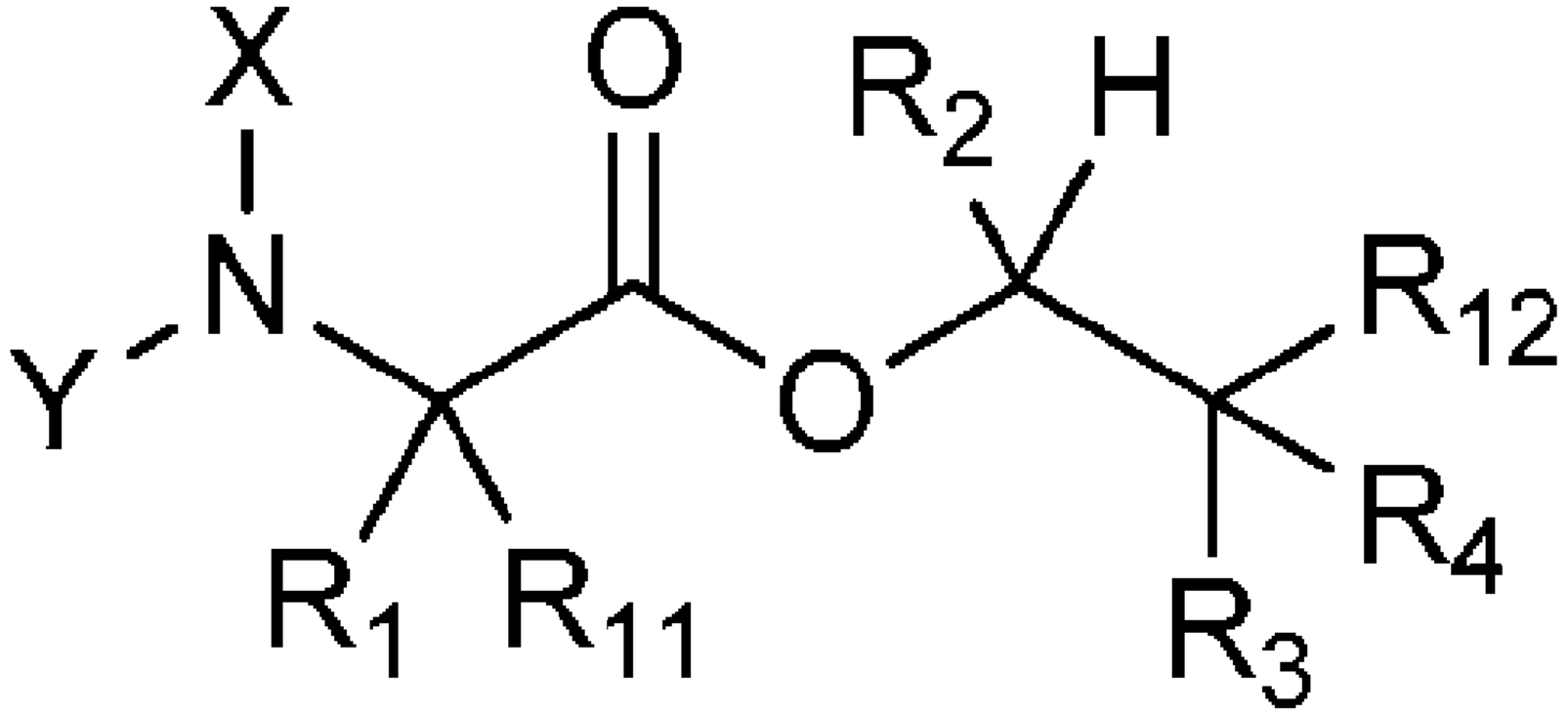
(54) Titre : UTILISATION DE COMPOSES DE PICOLINAMIDE EN TANT QUE FONGICIDES
(54) Title: USE OF PICOLINAMIDE COMPOUNDS AS FUNGICIDES



(I)

(57) Abrégé/Abstract:
This disclosure relates to picolinamides of Formula I and their use as fungicides. Fungicides are compounds, of natural or synthetic origin which act to protect and/or cure plants against damage caused by agriculturally relevant fungi. Generally, no single fungicide is useful in all situations. Consequently, research is ongoing to produce fungicides that may have better performance, are easier to use, and cost less The present disclosure relates to picolinamides and their use as fungicides. The compounds of the present disclosure may offer protection against ascomycetes, basidiomycetes, deuteromycetes and oomycetes.

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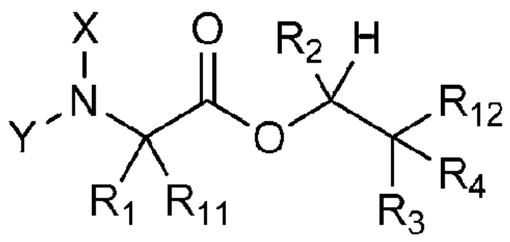
(54) **Title**: USE OF PICOLINAMIDE COMPOUNDS AS FUNGICIDES



(I)

(57) **Abstract**: This disclosure relates to picolinamides of Formula I and their use as fungicides. Fungicides are compounds, of natural or synthetic origin which act to protect and/or cure plants against damage caused by agriculturally relevant fungi. Generally, no single fungicide is useful in all situations. Consequently, research is ongoing to produce fungicides that may have better performance, are easier to use, and cost less The present disclosure relates to picolinamides and their use as fungicides. The compounds of the present disclosure may offer protection against ascomycetes, basidiomycetes, deuteromycetes and oomycetes.

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USE OF PICOLINAMIDE COMPOUNDS AS FUNGICIDES

CROSS REFERENCE TO RELATED APPLICATIONS

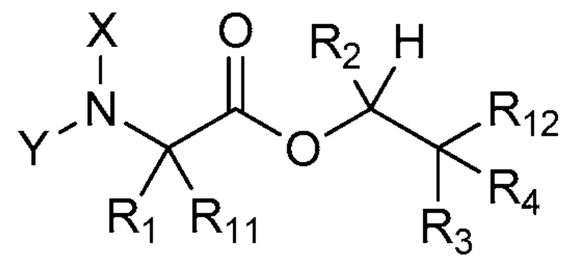
[0001] This application claims the benefit of U.S. Provisional Patent Application Serial Nos. 62/098120 filed December 30, 2014 and 62/098122 filed December 30, 2014, which are expressly incorporated by reference herein.

BACKGROUND & SUMMARY

[0002] Fungicides are compounds, of natural or synthetic origin, which act to protect and/or cure plants against damage caused by agriculturally relevant fungi. Generally, no single fungicide is useful in all situations. Consequently, research is ongoing to produce fungicides that may have better performance, are easier to use, and cost less.

[0003] The present disclosure relates to picolinamides and their use as fungicides. The compounds of the present disclosure may offer protection against ascomycetes, basidiomycetes, deuteromycetes and oomycetes.

[0004] One embodiment of the present disclosure may include compounds of Formula I:

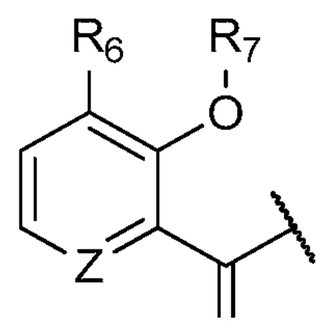


I

in which: X is hydrogen or $C(O)R_5$;

Y is hydrogen, $C(O)R_5$, or Q;

Q is



;

wherein: Z is N or CH;

R_1 is hydrogen or alkyl, each optionally substituted with 0, 1 or multiple R_8;

R_2 is methyl;

R_3 is chosen from aryl or heteroaryl, each optionally substituted with 0, 1 or multiple R_8;

R_4 is chosen from hydrogen, halo, hydroxyl, alkyl or alkoxy;

R_5 is chosen from alkoxy or benzyloxy, each optionally substituted with 0, 1, or multiple R_8;

R_6 is chosen from hydrogen, alkoxy, or halo, each optionally substituted with 0, 1, or multiple R_8;

R_7 is chosen from hydrogen, $-C(O)R_9$, or $-CH_2OC(O)R_9$;

R_8 is chosen from hydrogen, alkyl, aryl, acyl, halo, alkenyl, alkynyl, alkoxy, cyano or heterocyclyl, each optionally substituted with 0, 1, or multiple R_{10};

R_9 is chosen from alkyl, alkoxy, or aryl, each optionally substituted with 0, 1, or multiple R_8;

R_{10} is chosen from hydrogen, alkyl, aryl, acyl, halo, alkenyl, alkoxy, or heterocyclyl;

R_{11} is chosen from hydrogen or alkyl, substituted with 0, 1, or multiple R_8;

R_{12} is chosen from aryl or heteroaryl, each optionally substituted with 0, 1 or multiple R_8.

[0005] Another embodiment of the present disclosure may include a fungicidal composition for the control or prevention of fungal attack comprising the compounds described above and a phytologically acceptable carrier material.

[0006] Yet another embodiment of the present disclosure may include a method for the control or prevention of fungal attack on a plant, the method including the steps of applying a fungicidally effective amount of one or more of the compounds described above to at least one of the fungus, the plant, and an area adjacent to the plant.

[0007] It will be understood by those skilled in the art that the following terms may include generic "R"-groups within their definitions, e.g., "the term alkoxy refers to an –OR substituent". It is also understood that within the definitions for the following terms, these "R" groups are included for illustration purposes and should not be construed as limiting or being limited by substitutions about Formula I.

[0008] The term "alkyl" refers to a branched, unbranched, or saturated cyclic carbon chain, including, but not limited to, methyl, ethyl, propyl, butyl, isopropyl, isobutyl, tertiary butyl, pentyl, hexyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, and the like.

[0009] The term "alkenyl" refers to a branched, unbranched or cyclic carbon chain containing one or more double bonds including, but not limited to, ethenyl, propenyl, butenyl, isopropenyl, isobutenyl, cyclobutenyl, cyclopentenyl, cyclohexenyl, and the like.

[0010] The term "alkynyl" refers to a branched or unbranched carbon chain containing one or more triple bonds including, but not limited to, propynyl, butynyl, and the like.

[0011] The terms "aryl" and “Ar” refer to any aromatic ring, mono- or bi-cyclic, containing 0 heteroatoms.

[0012] The term "heterocyclyl" refers to any aromatic or non-aromatic ring, mono- or bi-cyclic, containing one or more heteroatoms.

[0013] The term "alkoxy" refers to an –OR substituent.

[0014] The term "acyloxy" refers to an –OC(O)R substituent.

[0015] The term "cyano" refers to a –C≡N substituent.

[0016] The term "hydroxyl" refers to an –OH substituent.

[0017] The term "amino" refers to a $–N(R)_2$ substituent.

[0018] The term "arylalkoxy" refers to $–O(CH_2)_nAr$ where *n* is an integer selected from the list 1, 2, 3, 4, 5, or 6.

[0019] The term "haloalkoxy" refers to an –OR–X substituent, wherein X is Cl, F, Br, or I, or any combination thereof.

[0020] The term "haloalkyl" refers to an alkyl, which is substituted with Cl, F, I, or Br or any combination thereof.

[0021] The term "halogen" or "halo" refers to one or more halogen atoms, defined as F, Cl, Br, and I.

[0022] The term "nitro" refers to a $–NO_2$ substituent.

[0023] The term thioalkyl refers to an –SR substituent.

[0024] Throughout the disclosure, reference to the compounds of Formula I is read as also including all stereoisomers, for example diastereomers, enantiomers, and mixtures thereof. In another embodiment, Formula I is read as also including salts or hydrates thereof. Exemplary salts include, but are not limited to: hydrochloride, hydrobromide, hydroiodide, trifluoroacetate, and trifluoromethane sulfonate.

[0025] It is also understood by those skilled in the art that additional substitution is allowable, unless otherwise noted, as long as the rules of chemical bonding and strain energy are satisfied and the product still exhibits fungicidal activity.

[0026] Another embodiment of the present disclosure is a use of a compound of Formula I, for protection of a plant against attack by a phytopathogenic organism or the treatment of a plant infested by a phytopathogenic organism, comprising the application of a compound of Formula I, or a composition comprising the compound to soil, a plant, a part of a plant, foliage, and/or roots.

[0027] Additionally, another embodiment of the present disclosure is a composition useful for protecting a plant against attack by a phytopathogenic organism and/or treatment of a plant infested by a phytopathogenic organism comprising a compound of Formula I and a phytologically acceptable carrier material.

DETAILED DESCRIPTION

[0028] The compounds of the present disclosure may be applied by any of a variety of known techniques, either as the compounds or as formulations comprising the compounds. For example, the compounds may be applied to the roots or foliage of plants for the control of various fungi, without damaging the commercial value of the plants. The materials may be applied in the form of any of the generally used formulation types, for example, as solutions, dusts, wettable powders, flowable concentrate, or emulsifiable concentrates.

[0029] Preferably, the compounds of the present disclosure are applied in the form of a formulation, comprising one or more of the compounds of Formula I with a phytologically acceptable carrier. Concentrated formulations may be dispersed in water, or other liquids, for application, or formulations may be dust-like or granular, which may then be applied without further treatment. The formulations can be prepared according to procedures that are conventional in the agricultural chemical art.

[0030] The present disclosure contemplates all vehicles by which one or more of the compounds may be formulated for delivery and use as a fungicide. Typically, formulations are applied as aqueous suspensions or emulsions. Such suspensions or emulsions may be produced from water-soluble, water-suspendible, or emulsifiable formulations which are solids, usually known as wettable powders; or liquids, usually known as emulsifiable concentrates, aqueous suspensions, or suspension concentrates. As will be readily appreciated, any material to which these

compounds may be added may be used, provided it yields the desired utility without significant interference with the activity of these compounds as antifungal agents.

[0031] Wettable powders, which may be compacted to form water-dispersible granules, comprise an intimate mixture of one or more of the compounds of Formula I, an inert carrier and surfactants. The concentration of the compound in the wettable powder may be from about 10 percent to about 90 percent by weight based on the total weight of the wettable powder, more preferably about 25 weight percent to about 75 weight percent. In the preparation of wettable powder formulations, the compounds may be compounded with any finely divided solid, such as prophyllite, talc, chalk, gypsum, Fuller's earth, bentonite, attapulgite, starch, casein, gluten, montmorillonite clays, diatomaceous earths, purified silicates or the like. In such operations, the finely divided carrier and surfactants are typically blended with the compound(s) and milled.

[0032] Emulsifiable concentrates of the compounds of Formula I may comprise a convenient concentration, such as from about 1 weight percent to about 50 weight percent of the compound, in a suitable liquid, based on the total weight of the concentrate. The compounds may be dissolved in an inert carrier, which is either a water-miscible solvent or a mixture of water-immiscible organic solvents, and emulsifiers. The concentrates may be diluted with water and oil to form spray mixtures in the form of oil-in-water emulsions. Useful organic solvents include aromatics, especially the high-boiling naphthalenic and olefinic portions of petroleum such as heavy aromatic naphtha. Other organic solvents may also be used, for example, terpenic solvents, including rosin derivatives, aliphatic ketones, such as cyclohexanone, and complex alcohols, such as 2-ethoxyethanol.

[0033] Emulsifiers which may be advantageously employed herein may be readily determined by those skilled in the art and include various nonionic, anionic, cationic and amphoteric emulsifiers, or a blend of two or more emulsifiers. Examples of nonionic emulsifiers useful in preparing the emulsifiable concentrates include the polyalkylene glycol ethers and condensation products of alkyl and aryl phenols, aliphatic alcohols, aliphatic amines or fatty acids with ethylene oxide, propylene oxides such as the ethoxylated alkyl phenols and carboxylic esters solubilized with the polyol or polyoxyalkylene. Cationic emulsifiers include quaternary ammonium compounds and fatty amine salts. Anionic emulsifiers include the oil-soluble salts (e.g., calcium) of alkylaryl sulfonic acids, oil-soluble salts or sulfated polyglycol ethers and appropriate salts of phosphated polyglycol ether.

[0034] Representative organic liquids which may be employed in preparing the emulsifiable concentrates of the compounds of the present disclosure are the aromatic liquids such as xylene, propyl benzene fractions; or mixed naphthalene fractions, mineral oils, substituted aromatic organic liquids such as dioctyl phthalate; kerosene; dialkyl amides of various fatty acids, particularly the dimethyl amides of fatty glycols and glycol derivatives such as the *n*-butyl ether, ethyl ether or methyl ether of diethylene glycol, the methyl ether of triethylene glycol, petroleum fractions or hydrocarbons such as mineral oil, aromatic solvents, paraffinic oils, and the like; vegetable oils such as soybean oil, rapeseed oil, olive oil, castor oil, sunflower seed oil, coconut oil, corn oil, cottonseed oil, linseed oil, palm oil, peanut oil, safflower oil, sesame oil, tung oil and the like; esters of the above vegetable oils; and the like. Mixtures of two or more organic liquids may also be employed in the preparation of the emulsifiable concentrate. Organic liquids include xylene, and propyl benzene fractions, with xylene being most preferred in some cases. Surface-active dispersing agents are typically employed in liquid formulations and in an amount of from 0.1 to 20 percent by weight based on the combined weight of the dispersing agent with one or more of the compounds. The formulations can also contain other compatible additives, for example, plant growth regulators and other biologically active compounds used in agriculture.

[0035] Aqueous suspensions comprise suspensions of one or more water-insoluble compounds of Formula I, dispersed in an aqueous vehicle at a concentration in the range from about 1 to about 50 weight percent, based on the total weight of the aqueous suspension. Suspensions are prepared by finely grinding one or more of the compounds, and vigorously mixing the ground material into a vehicle comprised of water and surfactants chosen from the same types discussed above. Other components, such as inorganic salts and synthetic or natural gums, may also be added to increase the density and viscosity of the aqueous vehicle.

[0036] The compounds of Formula I can also be applied as granular formulations, which are particularly useful for applications to the soil. Granular formulations generally contain from about 0.5 to about 10 weight percent, based on the total weight of the granular formulation of the compound(s), dispersed in an inert carrier which consists entirely or in large part of coarsely divided inert material such as attapulgite, bentonite, diatomite, clay or a similar inexpensive substance. Such formulations are usually prepared by dissolving the compounds in a suitable solvent and applying it to a granular carrier which has been preformed to the appropriate particle size, in the range of from about 0.5 to about 3 mm. A suitable solvent is a solvent in which the compound is substantially or

completely soluble. Such formulations may also be prepared by making a dough or paste of the carrier and the compound and solvent, and crushing and drying to obtain the desired granular particle.

[0037] Dusts containing the compounds of Formula I may be prepared by intimately mixing one or more of the compounds in powdered form with a suitable dusty agricultural carrier, such as, for example, kaolin clay, ground volcanic rock, and the like. Dusts can suitably contain from about 1 to about 10 weight percent of the compounds, based on the total weight of the dust.

[0038] The formulations may additionally contain adjuvant surfactants to enhance deposition, wetting, and penetration of the compounds onto the target crop and organism. These adjuvant surfactants may optionally be employed as a component of the formulation or as a tank mix. The amount of adjuvant surfactant will typically vary from 0.01 to 1.0 percent by volume, based on a spray-volume of water, preferably 0.05 to 0.5 volume percent. Suitable adjuvant surfactants include, but are not limited to ethoxylated nonyl phenols, ethoxylated synthetic or natural alcohols, salts of the esters or sulfosuccinic acids, ethoxylated organosilicones, ethoxylated fatty amines, blends of surfactants with mineral or vegetable oils, crop oil concentrate (mineral oil (85%) + emulsifiers (15%)); nonylphenol ethoxylate; benzylcocoalkyldimethyl quaternary ammonium salt; blend of petroleum hydrocarbon, alkyl esters, organic acid, and anionic surfactant; $C_9 - C_{11}$ alkylpolyglycoside; phosphated alcohol ethoxylate; natural primary alcohol ($C_{12} - C_{16}$) ethoxylate; di-*sec*-butylphenol EO-PO block copolymer; polysiloxane-methyl cap; nonylphenol ethoxylate + urea ammonium nitrrate; emulsified methylated seed oil; tridecyl alcohol (synthetic) ethoxylate (8EO); tallow amine ethoxylate (15 EO); PEG(400) dioleate-99. The formulations may also include oil-in-water emulsions such as those disclosed in U.S. Patent Application Serial No. 11/495,228, the disclosure of which is expressly incorporated by reference herein.

[0039] The formulations may optionally include combinations that contain other pesticidal compounds. Such additional pesticidal compounds may be fungicides, insecticides, herbicides, nematocides, miticides, arthropodicides, bactericides or combinations thereof that are compatible with the compounds of the present disclosure in the medium selected for application, and not antagonistic to the activity of the present compounds. Accordingly, in such embodiments, the other pesticidal compound is employed as a supplemental toxicant for the same or for a different pesticidal use. The compounds of Formula I and the pesticidal compound in the combination can generally be present in a weight ratio of from 1:100 to100:1.

[0040] The compounds of the present disclosure may also be combined with other fungicides to form fungicidal mixtures and synergistic mixtures thereof. The fungicidal compounds of the present disclosure are often applied in conjunction with one or more other fungicides to control a wider variety of undesirable diseases. When used in conjunction with other fungicide(s), the presently claimed compounds may be formulated with the other fungicide(s), tank-mixed with the other fungicide(s) or applied sequentially with the other fungicide(s). Such other fungicides may include 2-(thiocyanatomethylthio)-benzothiazole, 2-phenylphenol, 8-hydroxyquinoline sulfate, ametoctradin, amisulbrom, antimycin, *Ampelomyces quisqualis*, azaconazole, azoxystrobin, *Bacillus subtilis*, *Bacillus subtilis* strain QST713, benalaxyl, benomyl, benthiavalicarb-isopropyl, benzovindiflupyr, benzylaminobenzene-sulfonate (BABS) salt, bicarbonates, biphenyl, bismerthiazol, bitertanol, bixafen, blasticidin-S, borax, Bordeaux mixture, boscalid, bromuconazole, bupirimate, calcium polysulfide, captafol, captan, carbendazim, carboxin, carpropamid, carvone, chlazafenone, chloroneb, chlorothalonil, chlozolinate, *Coniothyrium minitans*, copper hydroxide, copper octanoate, copper oxychloride, copper sulfate, copper sulfate (tribasic), coumoxystrobin, cuprous oxide, cyazofamid, cyflufenamid, cymoxanil, cyproconazole, cyprodinil, dazomet, debacarb, diammonium ethylenebis-(dithiocarbamate), dichlofluanid, dichlorophen, diclocymet, diclomezine, dichloran, diethofencarb, difenoconazole, difenzoquat ion, diflumetorim, dimethomorph, dimoxystrobin, diniconazole, diniconazole-M, dinobuton, dinocap, diphenylamine, dipymetitrone, dithianon, dodemorph, dodemorph acetate, dodine, dodine free base, edifenphos, enestrobin, enestroburin, enoxastrobin, epoxiconazole, ethaboxam, ethoxyquin, etridiazole, famoxadone, fenamidone, fenaminostrobin, fenarimol, fenbuconazole, fenfuram, fenhexamid, fenoxanil, fenpiclonil, fenpropidin, fenpropimorph, fenpyrazamine, fentin, fentin acetate, fentin hydroxide, ferbam, ferimzone, fluazinam, fludioxonil, flufenoxystrobin, flumorph, fluopicolide, fluopyram, fluoroimide, fluoxastrobin, fluquinconazole, flusilazole, flusulfamide, flutianil, flutolanil, flutriafol, fluxapyroxad, folpet, formaldehyde, fosetyl, fosetyl-aluminium, fuberidazole, furalaxyl, furametpyr, guazatine, guazatine acetates, GY-81, hexachlorobenzene, hexaconazole, hymexazol, imazalil, imazalil sulfate, imibenconazole, iminoctadine, iminoctadine triacetate, iminoctadine tris(albesilate), iodocarb, ipconazole, ipfenpyrazolone, iprobenfos, iprodione, iprovalicarb, isofetamid, isoprothiolane, isopyrazam, isotianil, kasugamycin, kasugamycin hydrochloride hydrate, kresoxim-methyl, laminarin, mancopper, mancozeb, mandestrobin, mandipropamid, maneb, mefenoxam, mepanipyrim, mepronil, meptyl-dinocap, mercuric chloride,

mercuric oxide, mercurous chloride, metalaxyl, metalaxyl-M, metam, metam-ammonium, metam-potassium, metam-sodium, metconazole, methasulfocarb, methyl iodide, methyl isothiocyanate, metiram, metominostrobin, metrafenone, mildiomycin, myclobutanil, nabam, nitrothal-isopropyl, nuarimol, octhilinone, ofurace, oleic acid (fatty acids), orysastrobin, oxadixyl, oxathiapiprolin, oxine-copper, oxpoconazole fumarate, oxycarboxin, pefurazoate, penconazole, pencycuron, penflufen, pentachlorophenol, pentachlorophenyl laurate, penthiopyrad, phenylmercury acetate, phosphonic acid, phthalide, picarbutrazox, picoxystrobin, polyoxin B, polyoxins, polyoxorim, potassium bicarbonate, potassium hydroxyquinoline sulfate, probenazole, prochloraz, procymidone, propamocarb, propamocarb hydrochloride, propiconazole, propineb, proquinazid, prothioconazole, pyraclostrobin, pyrametostrobin, pyraoxystrobin, pyraziflumid, pyrazophos, pyribencarb, pyributicarb, pyrifenox, pyrimethanil, pyriofenone, pyrisoxazole, pyroquilon, quinoclamine, quinoxyfen, quintozene, *Reynoutria sachalinensis* extract, sedaxane, silthiofam, simeconazole, sodium 2-phenylphenoxide, sodium bicarbonate, sodium pentachlorophenoxide, spiroxamine, sulfur, SYP-Z048, tar oils, tebuconazole, tebufloquin, tecnazene, tetraconazole, thiabendazole, thifluzamide, thiophanate-methyl, thiram, tiadinil, tolclofos-methyl, tolprocarb, tolylfluanid, triadimefon, triadimenol, triazoxide, triclopyricarb, tricyclazole, tridemorph, trifloxystrobin, triflumizole, triforine, triticonazole, validamycin, valifenalate, valiphenal, vinclozolin, zineb, ziram, zoxamide, *Candida oleophila*, *Fusarium oxysporum*, *Gliocladium* spp., *Phlebiopsis gigantea*, *Streptomyces griseoviridis*, *Trichoderma* spp., (*RS*)-*N*-(3,5-dichlorophenyl)-2-(methoxymethyl)-succinimide, 1,2-dichloropropane, 1,3-dichloro-1,1,3,3-tetrafluoroacetone hydrate, 1-chloro-2,4-dinitronaphthalene, 1-chloro-2-nitropropane, 2-(2-heptadecyl-2-imidazolin-1-yl)ethanol, 2,3-dihydro-5-phenyl-1,4-dithi-ine 1,1,4,4-tetraoxide, 2-methoxyethylmercury acetate, 2-methoxyethylmercury chloride, 2-methoxyethylmercury silicate, 3-(4-chlorophenyl)-5-methylrhodanine, 4-(2-nitroprop-1-enyl)phenyl thiocyanateme**,** ampropylfos, anilazine, azithiram, barium polysulfide, Bayer 32394, benodanil, benquinox, bentaluron, benzamacril, benzamacril-isobutyl, benzamorf, binapacryl, bis(methylmercury) sulfate, bis(tributyltin) oxide, buthiobate, cadmium calcium copper zinc chromate sulfate, carbamorph, CECA, chlobenthiazone, chloraniformethan, chlorfenazole, chlorquinox, climbazole, copper bis(3-phenylsalicylate), copper zinc chromate, cufraneb, cupric hydrazinium sulfate, cuprobam, cyclafuramid, cypendazole, cyprofuram, decafentin, dichlone, dichlozoline, diclobutrazol, dimethirimol, dinocton, dinosulfon, dinoterbon, dipyrithione, ditalimfos, dodicin, drazoxolon, EBP, ESBP, etaconazole, etem, ethirim,

fenaminosulf, fenapanil, fenitropan, fluotrimazole, furcarbanil, furconazole, furconazole-cis, furmecyclox, furophanate, glyodine, griseofulvin, halacrinate, Hercules 3944, hexylthiofos, ICIA0858, isopamphos, isovaledione, mebenil, mecarbinzid, metazoxolon, methfuroxam, methylmercury dicyandiamide, metsulfovax, milneb, mucochloric anhydride, myclozolin, *N*-3,5-dichlorophenyl-succinimide, *N*-3-nitrophenylitaconimide, natamycin, *N*-ethylmercurio-4-toluenesulfonanilide, nickel bis(dimethyldithiocarbamate), OCH, phenylmercury dimethyldithiocarbamate, phenylmercury nitrate, phosdiphen, prothiocarb, prothiocarb hydrochloride, pyracarbolid, pyridinitril, pyroxychlor, pyroxyfur, quinacetol, quinacetol sulfate, quinazamid, quinconazole, rabenzazole, salicylanilide, SSF-109, sultropen, tecoram, thiadifluor, thicyofen, thiochlorfenphim, thiophanate, thioquinox, tioxymid, triamiphos, triarimol, triazbutil, trichlamide, urbacid, zarilamid, and any combinations thereof.

[0041] Additionally, the compounds described herein may be combined with other pesticides, including insecticides, nematocides, miticides, arthropodicides, bactericides or combinations thereof that are compatible with the compounds of the present disclosure in the medium selected for application, and not antagonistic to the activity of the present compounds to form pesticidal mixtures and synergistic mixtures thereof. The fungicidal compounds of the present disclosure may be applied in conjunction with one or more other pesticides to control a wider variety of undesirable pests. When used in conjunction with other pesticides, the presently claimed compounds may be formulated with the other pesticide(s), tank-mixed with the other pesticide(s) or applied sequentially with the other pesticide(s). Typical insecticides include, but are not limited to: 1,2-dichloropropane, abamectin, acephate, acetamiprid, acethion, acetoprole, acrinathrin, acrylonitrile, afidopyropen, alanycarb, aldicarb, aldoxycarb, aldrin, allethrin, allosamidin, allyxycarb, alpha-cypermethrin, alpha-ecdysone, alpha-endosulfan, amidithion, aminocarb, amiton, amiton oxalate, amitraz, anabasine, athidathion, azadirachtin, azamethiphos, azinphos-ethyl, azinphos-methyl, azothoate, barium hexafluorosilicate, barthrin, bendiocarb, benfuracarb, bensultap, beta-cyfluthrin, beta-cypermethrin, bifenthrin, bioallethrin, bioethanomethrin, biopermethrin, bistrifluron, borax, boric acid, broflanilide, bromfenvinfos, bromocyclen, bromo-DDT, bromophos, bromophos-ethyl, bufencarb, buprofezin, butacarb, butathiofos, butocarboxim, butonate, butoxycarboxim, cadusafos, calcium arsenate, calcium polysulfide, camphechlor, carbanolate, carbaryl, carbofuran, carbon disulfide, carbon tetrachloride, carbophenothion, carbosulfan, cartap, cartap hydrochloride, chlorantraniliprole, chlorbicyclen, chlordane, chlordecone, chlordimeform, chlordimeform

hydrochloride, chlorethoxyfos, chlorfenapyr, chlorfenvinphos, chlorfluazuron, chlormephos, chloroform, chloropicrin, chlorphoxim, chlorprazophos, chlorpyrifos, chlorpyrifos-methyl, chlorthiophos, chromafenozide, cinerin I, cinerin II, cinerins, cismethrin, clacyfos, cloethocarb, closantel, clothianidin, copper acetoarsenite, copper arsenate, copper naphthenate, copper oleate, coumaphos, coumithoate, crotamiton, crotoxyphos, crufomate, cryolite, cyanofenphos, cyanophos, cyanthoate, cyantraniliprole, cyclaniliprole, cyclethrin, cycloprothrin, cyfluthrin, cyhalothrin, cypermethrin, cyphenothrin, cyromazine, cythioate, DDT, decarbofuran, deltamethrin, demephion, demephion-O, demephion-S, demeton, demeton-methyl, demeton-O, demeton-O-methyl, demeton-S, demeton-S-methyl, demeton-S-methylsulphon, diafenthiuron, dialifos, diatomaceous earth, diazinon, dicapthon, dichlofenthion, dichlorvos, dicloromezotiaz, dicresyl, dicrotophos, dicyclanil, dieldrin, diflubenzuron, dilor, dimefluthrin, dimefox, dimetan, dimethoate, dimethrin, dimethylvinphos, dimetilan, dinex, dinex-diclexine, dinoprop, dinosam, dinotefuran, diofenolan, dioxabenzofos, dioxacarb, dioxathion, disulfoton, dithicrofos, d-limonene, DNOC, DNOC-ammonium, DNOC-potassium, DNOC-sodium, doramectin, ecdysterone, emamectin, emamectin benzoate, EMPC, empenthrin, endosulfan, endothion, endrin, EPN, epofenonane, eprinomectin, esdepalléthrine, esfenvalerate, etaphos, ethiofencarb, ethion, ethiprole, ethoate-methyl, ethoprophos, ethyl formate, ethyl-DDD, ethylene dibromide, ethylene dichloride, ethylene oxide, etofenprox, etrimfos, EXD, famphur, fenamiphos, fenazaflor, fenchlorphos, fenethacarb, fenfluthrin, fenitrothion, fenobucarb, fenoxacrim, fenoxycarb, fenpirithrin, fenpropathrin, fensulfothion, fenthion, fenthion-ethyl, fenvalerate, fipronil, flometoquin, flonicamid, flubendiamide, flucofuron, flucycloxuron, flucythrinate, flufenerim, flufenoxuron, flufenprox, flufiprole, fluhexafon, flupyradifurone, fluvalinate, fonofos, formetanate, formetanate hydrochloride, formothion, formparanate, formparanate hydrochloride, fosmethilan, fospirate, fosthietan, furathiocarb, furethrin, gamma-cyhalothrin, gamma-HCH, halfenprox, halofenozide, HCH, HEOD, heptachlor, heptafluthrin, heptenophos, heterophos, hexaflumuron, HHDN, hydramethylnon, hydrogen cyanide, hydroprene, hyquincarb, imidacloprid, imiprothrin, indoxacarb, iodomethane, IPSP, isazofos, isobenzan, isocarbophos, isodrin, isofenphos, isofenphos-methyl, isoprocarb, isoprothiolane, isothioate, isoxathion, ivermectin, jasmolin I, jasmolin II, jodfenphos, juvenile hormone I, juvenile hormone II, juvenile hormone III, kappa-bifenthrin, kappa-tefluthrin, kelevan, kinoprene, lambda-cyhalothrin, lead arsenate, lepimectin, leptophos, lindane, lirimfos, lufenuron, lythidathion, malathion, malonoben, mazidox, mecarbam, mecarphon, menazon, mephosfolan, mercurous

chloride, mesulfenfos, metaflumizone, methacrifos, methamidophos, methidathion, methiocarb, methocrotophos, methomyl, methoprene, methoxychlor, methoxyfenozide, methyl bromide, methyl isothiocyanate, methylchloroform, methylene chloride, metofluthrin, metolcarb, metoxadiazone, mevinphos, mexacarbate, milbemectin, milbemycin oxime, mipafox, mirex, molosultap, momfluorothrin, monocrotophos, monomehypo, monosultap, morphothion, moxidectin, naftalofos, naled, naphthalene, nicotine, nifluridide, nitenpyram, nithiazine, nitrilacarb, novaluron, noviflumuron, omethoate, oxamyl, oxydemeton-methyl, oxydeprofos, oxydisulfoton, para-dichlorobenzene, parathion, parathion-methyl, penfluron, pentachlorophenol, permethrin, phenkapton, phenothrin, phenthoate, phorate, phosalone, phosfolan, phosmet, phosnichlor, phosphamidon, phosphine, phoxim, phoxim-methyl, pirimetaphos, pirimicarb, pirimiphos-ethyl, pirimiphos-methyl, potassium arsenite, potassium thiocyanate, pp'-DDT, prallethrin, precocene I, precocene II, precocene III, primidophos, profenofos, profluralin, promacyl, promecarb, propaphos, propetamphos, propoxur, prothidathion, prothiofos, prothoate, protrifenbute, pyflubumide, pyraclofos, pyrafluprole, pyrazophos, pyresmethrin, pyrethrin I, pyrethrin II, pyrethrins, pyridaben, pyridalyl, pyridaphenthion, pyrifluquinazon, pyrimidifen, pyriminostrobin, pyrimitate, pyriprole, pyriproxyfen, quassia, quinalphos, quinalphos-methyl, quinothion, rafoxanide, resmethrin, rotenone, ryania, sabadilla, schradan, selamectin, silafluofen, silica gel, sodium arsenite, sodium fluoride, sodium hexafluorosilicate, sodium thiocyanate, sophamide, spinetoram, spinosad, spiromesifen, spirotetramat, sulcofuron, sulcofuron-sodium, sulfluramid, sulfotep, sulfoxaflor, sulfuryl fluoride, sulprofos, tau-fluvalinate, tazimcarb, TDE, tebufenozide, tebufenpyrad, tebupirimfos, teflubenzuron, tefluthrin, temephos, TEPP, terallethrin, terbufos, tetrachloroethane, tetrachlorvinphos, tetramethrin, tetramethylfluthrin, tetraniliprole, theta-cypermethrin, thiacloprid, thiamethoxam, thicrofos, thiocarboxime, thiocyclam, thiocyclam oxalate, thiodicarb, thiofanox, thiometon, thiosultap, thiosultap-disodium, thiosultap-monosodium, thuringiensin, tioxazafen, tolfenpyrad, tralomethrin, transfluthrin, transpermethrin, triarathene, triazamate, triazophos, trichlorfon, trichlormetaphos-3, trichloronat, trifenofos, triflumezopyrim, triflumuron, trimethacarb, triprene, vamidothion, vaniliprole, XMC, xylylcarb, zeta-cypermethrin, zolaprofos, and any combinations thereof.

[0042] Additionally, the compounds described herein may be combined with herbicides that are compatible with the compounds of the present disclosure in the medium selected for application, and not antagonistic to the activity of the present compounds to form pesticidal mixtures and

synergistic mixtures thereof. The fungicidal compounds of the present disclosure may be applied in conjunction with one or more herbicides to control a wide variety of undesirable plants. When used in conjunction with herbicides, the presently claimed compounds may be formulated with the herbicide(s), tank-mixed with the herbicide(s) or applied sequentially with the herbicide(s). Typical herbicides include, but are not limited to: 4-CPA; 4-CPB; 4-CPP; 2,4-D; 3,4-DA; 2,4-DB; 3,4-DB; 2,4-DEB; 2,4-DEP; 3,4-DP; 2,3,6-TBA; 2,4,5-T; 2,4,5-TB; acetochlor, acifluorfen, aclonifen, acrolein, alachlor, allidochlor, alloxydim, allyl alcohol, alorac, ametridione, ametryn, amibuzin, amicarbazone, amidosulfuron, aminocyclopyrachlor, aminopyralid, amiprofos-methyl, amitrole, ammonium sulfamate, anilofos, anisuron, asulam, atraton, atrazine, azafenidin, azimsulfuron, aziprotryne, barban, BCPC, beflubutamid, benazolin, bencarbazone, benfluralin, benfuresate, bensulfuron, bensulide, bentazone, benzadox, benzfendizone, benzipram, benzobicyclon, benzofenap, benzofluor, benzoylprop, benzthiazuron, bicyclopyrone, bifenox, bilanafos, bispyribac, borax, bromacil, bromobonil, bromobutide, bromofenoxim, bromoxynil, brompyrazon, butachlor, butafenacil, butamifos, butenachlor, buthidazole, buthiuron, butralin, butroxydim, buturon, butylate, cacodylic acid, cafenstrole, calcium chlorate, calcium cyanamide, cambendichlor, carbasulam, carbetamide, carboxazole, chlorprocarb, carfentrazone, CDEA, CEPC, chlomethoxyfen, chloramben, chloranocryl, chlorazifop, chlorazine, chlorbromuron, chlorbufam, chloreturon, chlorfenac, chlorfenprop, chlorflurazole, chlorflurenol, chloridazon, chlorimuron, chlornitrofen, chloropon, chlorotoluron, chloroxuron, chloroxynil, chlorpropham, chlorsulfuron, chlorthal, chlorthiamid, cinidon-ethyl, cinmethylin, cinosulfuron, cisanilide, clethodim, cliodinate, clodinafop, clofop, clomazone, clomeprop, cloprop, cloproxydim, clopyralid, cloransulam, CMA, copper sulfate, CPMF, CPPC, credazine, cresol, cumyluron, cyanatryn, cyanazine, cycloate, cyclopyrimorate, cyclosulfamuron, cycloxydim, cycluron, cyhalofop, cyperquat, cyprazine, cyprazole, cypromid, daimuron, dalapon, dazomet, delachlor, desmedipham, desmetryn, di-allate, dicamba, dichlobenil, dichloralurea, dichlormate, dichlorprop, dichlorprop-P, diclofop, diclosulam, diethamquat, diethatyl, difenopenten, difenoxuron, difenzoquat, diflufenican, diflufenzopyr, dimefuron, dimepiperate, dimethachlor, dimethametryn, dimethenamid, dimethenamid-P, dimexano, dimidazon, dinitramine, dinofenate, dinoprop, dinosam, dinoseb, dinoterb, diphenamid, dipropetryn, diquat, disul, dithiopyr, diuron, DMPA, DNOC, DSMA, EBEP, eglinazine, endothal, epronaz, EPTC, erbon, esprocarb, ethalfluralin, ethametsulfuron, ethidimuron, ethiolate, ethofumesate, ethoxyfen, ethoxysulfuron, etinofen, etnipromid, etobenzanid, EXD, fenasulam,

fenoprop, fenoxaprop, fenoxaprop-P, fenoxasulfone, fenquinotrione, fenteracol, fenthiaprop, fentrazamide, fenuron, ferrous sulfate, flamprop, flamprop-M, flazasulfuron, florasulam, fluazifop, fluazifop-P, fluazolate, flucarbazone, flucetosulfuron, fluchloralin, flufenacet, flufenican, flufenpyr, flumetsulam, flumezin, flumiclorac, flumioxazin, flumipropyn, fluometuron, fluorodifen, fluoroglycofen, fluoromidine, fluoronitrofen, fluothiuron, flupoxam, flupropacil, flupropanate, flupyrsulfuron, fluridone, flurochloridone, fluroxypyr, flurtamone, fluthiacet, fomesafen, foramsulfuron, fosamine, furyloxyfen, glufosinate, glufosinate-P, glyphosate, halauxifen, halosafen, halosulfuron, haloxydine, haloxyfop, haloxyfop-P, hexachloroacetone, hexaflurate, hexazinone, imazamethabenz, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, indanofan, indaziflam, iodobonil, iodomethane, iodosulfuron, iofensulfuron, ioxynil, ipazine, ipfencarbazone, iprymidam, isocarbamid, isocil, isomethiozin, isonoruron, isopolinate, isopropalin, isoproturon, isouron, isoxaben, isoxachlortole, isoxaflutole, isoxapyrifop, karbutilate, ketospiradox, lactofen, lenacil, linuron, MAA, MAMA, MCPA, MCPA-thioethyl, MCPB, mecoprop, mecoprop-P, medinoterb, mefenacet, mefluidide, mesoprazine, mesosulfuron, mesotrione, metam, metamifop, metamitron, metazachlor, metazosulfuron, metflurazon, methabenzthiazuron, methalpropalin, methazole, methiobencarb, methiozolin, methiuron, methometon, methoprotryne, methyl bromide, methyl isothiocyanate, methyldymron, metobenzuron, metobromuron, metolachlor, metosulam, metoxuron, metribuzin, metsulfuron, molinate, monalide, monisouron, monochloroacetic acid, monolinuron, monuron, morfamquat, MSMA, naproanilide, napropamide, napropamide-M, naptalam, neburon, nicosulfuron, nipyraclofen, nitralin, nitrofen, nitrofluorfen, norflurazon, noruron, OCH, orbencarb, *ortho*-dichlorobenzene, orthosulfamuron, oryzalin, oxadiargyl, oxadiazon, oxapyrazon, oxasulfuron, oxaziclomefone, oxyfluorfen, parafluron, paraquat, pebulate, pelargonic acid, pendimethalin, penoxsulam, pentachlorophenol, pentanochlor, pentoxazone, perfluidone, pethoxamid, phenisopham, phenmedipham, phenmedipham-ethyl, phenobenzuron, phenylmercury acetate, picloram, picolinafen, pinoxaden, piperophos, potassium arsenite, potassium azide, potassium cyanate, pretilachlor, primisulfuron, procyazine, prodiamine, profluazol, profluralin, profoxydim, proglinazine, prometon, prometryn, propachlor, propanil, propaquizafop, propazine, propham, propisochlor, propoxycarbazone, propyrisulfuron, propyzamide, prosulfalin, prosulfocarb, prosulfuron, proxan, prynachlor, pydanon, pyraclonil, pyraflufen, pyrasulfotole, pyrazolynate, pyrazosulfuron, pyrazoxyfen, pyribenzoxim, pyributicarb, pyriclor, pyridafol, pyridate, pyriftalid, pyriminobac, pyrimisulfan, pyrithiobac, pyroxasulfone, pyroxsulam, quinclorac,

quinmerac, quinoclamine, quinonamid, quizalofop, quizalofop-P, rhodethanil, rimsulfuron, saflufenacil, S-metolachlor, sebuthylazine, secbumeton, sethoxydim, siduron, simazine, simeton, simetryn, SMA, sodium arsenite, sodium azide, sodium chlorate, sulcotrione, sulfallate, sulfentrazone, sulfometuron, sulfosulfuron, sulfuric acid, sulglycapin, swep, TCA, tebutam, tebuthiuron, tefuryltrione, tembotrione, tepraloxydim, terbacil, terbucarb, terbuchlor, terbumeton, terbuthylazine, terbutryn, tetrafluron, thenylchlor, thiazafluron, thiazopyr, thidiazimin, thidiazuron, thiencarbazone-methyl, thifensulfuron, thiobencarb, tiafenacil, tiocarbazil, tioclorim, tolpyralate, topramezone, tralkoxydim, triafamone, tri-allate, triasulfuron, triaziflam, tribenuron, tricamba, triclopyr, tridiphane, trietazine, trifloxysulfuron, trifludimoxazin, trifluralin, triflusulfuron, trifop, trifopsime, trihydroxytriazine, trimeturon, tripropindan, tritac, tritosulfuron, vernolate, and xylachlor.

[0043] Another embodiment of the present disclosure is a method for the control or prevention of fungal attack. This method comprises applying to the soil, plant, roots, foliage, or locus of the fungus, or to a locus in which the infestation is to be prevented (for example applying to cereal or grape plants), a fungicidally effective amount of one or more of the compounds of Formula I. The compounds are suitable for treatment of various plants at fungicidal levels, while exhibiting low phytotoxicity. The compounds may be useful both in a protectant and/or an eradicant fashion.

[0044] The compounds have been found to have significant fungicidal effect particularly for agricultural use. Many of the compounds are particularly effective for use with agricultural crops and horticultural plants.

[0045] It will be understood by those skilled in the art that the efficacy of the compound for the foregoing fungi establishes the general utility of the compounds as fungicides.

[0046] The compounds have broad ranges of activity against fungal pathogens. Exemplary pathogens may include, but are not limited to, causing agent of wheat leaf blotch (*Zymoseptoria tritici*), wheat brown rust (*Puccinia triticina*), wheat stripe rust (*Puccinia striiformis*), scab of apple (*Venturia inaequalis*), powdery mildew of grapevine (*Uncinula necator*), barley scald (*Rhynchosporium secalis*), blast of rice (*Pyricularia oryzae*), rust of soybean (*Phakopsora pachyrhizi*), glume blotch of wheat (*Leptosphaeria nodorum*), powdery mildew of wheat (*Blumeria graminis f. sp.tritici*), powdery mildew of barley (*Blumeria graminis f. sp. hordei*), powdery mildew of cucurbits (*Erysiphe cichoracearum*), anthracnose of cucurbits (*Colletotrichum lagenarium*), leaf spot of beet (*Cercospora beticola*), early blight of tomato (*Alternaria solani*), and spot blotch of

barley (*Cochliobolus sativus)*. The exact amount of the active material to be applied is dependent not only on the specific active material being applied, but also on the particular action desired, the fungal species to be controlled, and the stage of growth thereof, as well as the part of the plant or other product to be contacted with the compound. Thus, all the compounds, and formulations containing the same, may not be equally effective at similar concentrations or against the same fungal species.

[0047] The compounds are effective in use with plants in a disease-inhibiting and phytologically acceptable amount. The term "disease-inhibiting and phytologically acceptable amount" refers to an amount of a compound that kills or inhibits the plant disease for which control is desired, but is not significantly toxic to the plant. This amount will generally be from about 0.1 to about 1000 ppm (parts per million), with 1 to 500 ppm being preferred. The exact concentration of compound required varies with the fungal disease to be controlled, the type of formulation employed, the method of application, the particular plant species, climate conditions, and the like. A suitable application rate is typically in the range from about 0.10 to about 4 pounds/acre (about 0.01 to 0.45 grams per square meter, g/m^2).

[0048] Any range or desired value given herein may be extended or altered without losing the effects sought, as is apparent to the skilled person for an understanding of the teachings herein.

[0049] The compounds of Formula I may be made using well-known chemical procedures. Intermediates not specifically mentioned in this disclosure are either commercially available, may be made by routes disclosed in the chemical literature, or may be readily synthesized from commercial starting materials utilizing standard procedures.

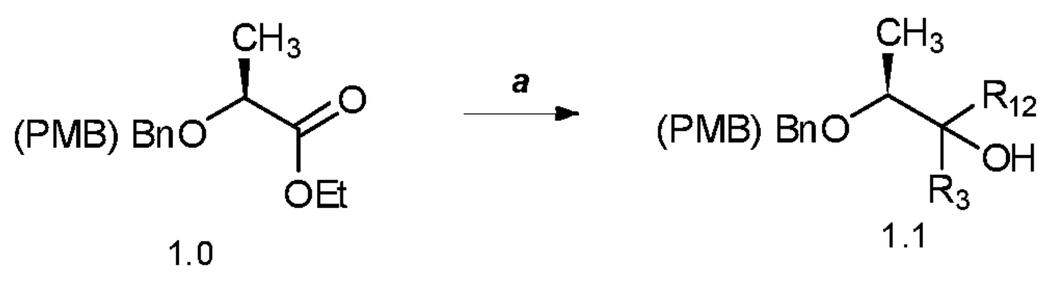
GENERAL SCHEMES

[0050] The following schemes illustrate approaches to generating picolinamide compounds of Formula I. The following descriptions and examples are provided for illustrative purposes and should not be construed as limiting in terms of substituents or substitution patterns.

[0051] Compounds of Formula 1.1, wherein R_3 and R_{12} are as originally defined and are equivalent, can be prepared by the methods shown in **Scheme 1, step *a***. The compound of Formula 1.0 can be treated with an organometallic nucleophile such as phenylmagnesium bromide (PhMgBr) in a polar aprotic solvent such as tetrahydrofuran (THF) at a temperature of

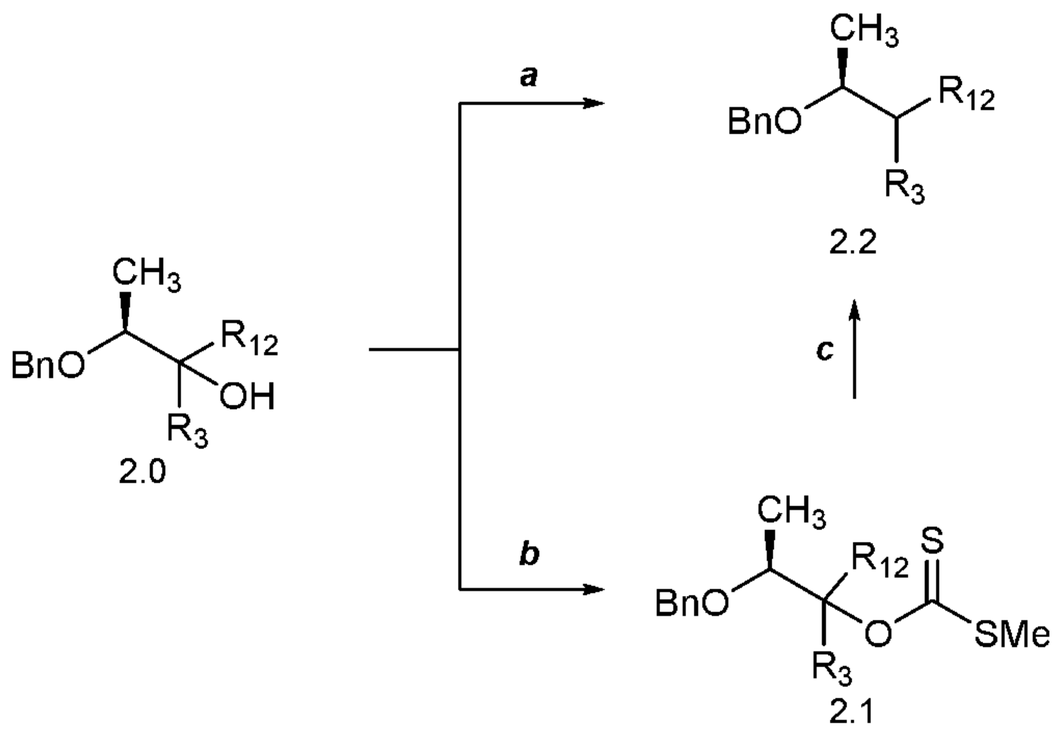
about 0 °C to 23 °C to afford compounds of Formula 1.1, wherein R_3 and R_{12} are as previously defined, as shown in ***a***.

Scheme 1



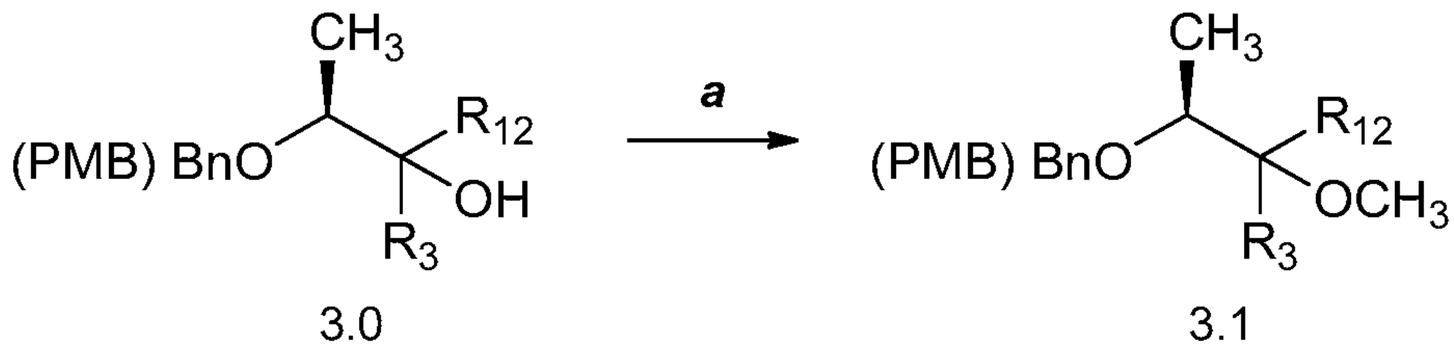
[0052] Compounds of Formula 2.2, wherein R_3 is as originally defined and may or may not be equal to R_{12}, can be prepared by the methods shown in **Scheme 2, steps *a* – *c***. Compounds of Formula 2.2, wherein R_3 and R_{12} are as previously defined but not an electron-deficient aryl or heteroaryl group and may or may not be equivalent, can be obtained by treating the compounds of Formula 2.0, wherein R_3 and R_{12} are as previously defined but not an electron-deficient aryl or heteroaryl group and may or may not be equivalent, with a mixture of a hydride reagent, such as triethylsilane (Et_3SiH), and an acid, such as 2,2,2-trifluoroacetic acid (TFA) in a halogenated solvent such as dichloromethane (DCM) at a temperature of about 0 °C to 23 °C, as depicted in ***a***. Alternatively, compounds of Formula 2.1, wherein R_3 and R_{12} are an electron-deficient aryl or heteroaryl group and may or may not be equivalent, can be obtained by treating the compounds of Formula 2.0, wherein R_3 and R_{12} are an electron-deficient aryl or heteroaryl group and may or may not be equivalent, with a base, such as sodium hydride (NaH), and a catalyst, such as imidazole, in a polar aprotic solvent such as THF at a temperature of about 23 °C, followed by sequential addition of carbon disulfide (CS_2) and an alkyl iodide, such as iodomethane (MeI), as depicted in ***b***. Compounds of Formula 2.2, wherein R_3 and R_{12} are an electron-deficient aryl or heteroaryl group and may or may not be equivalent, can be obtained by treating the compounds of Formula 2.1, wherein R_3 and R_{12} are as previously defined and may or may not be equivalent, with a tin reagent, such as tributyltin hydride, and a radical initiator, such as azobisisobutyronitrile (AIBN), in a nonpolar solvent such as toluene at a temperature of about 115 °C, as depicted in ***c***.

Scheme 2



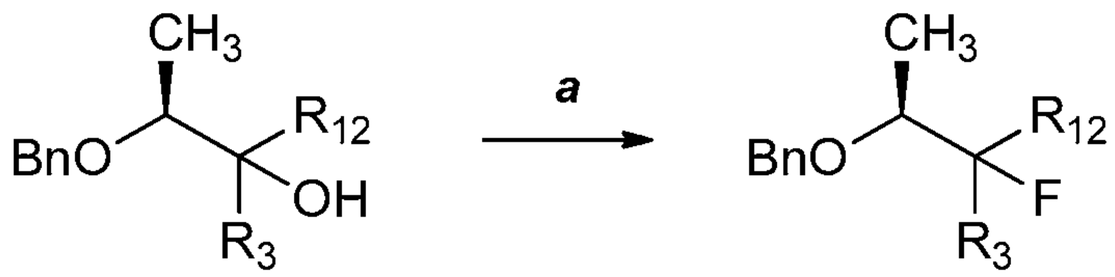
[0053] Compounds of Formula 3.1, wherein R_3 and R_{12} are as originally defined and may or may not be equivalent, can be prepared according to the method outlined in **Scheme 3, step *a***. Compounds of Formula 3.1, wherein R_3 and R_{12} are as originally defined and may or may not be equivalent, can be prepared from compounds of Formula 3.0, wherein R_3 and R_{12} are as previously defined and may or may not be equivalent, by treating with a base, such as NaH and an alkyl halide, such as MeI, in a polar aprotic solvent like *N*,*N*-dimethylformamide (DMF) at a temperature of about 0 °C to 23 °C, as depicted in ***a***.

Scheme 3



[0054] Compounds of Formula 4.1, wherein R_3 and R_{12} are as originally defined and may or may not be equivalent, can be prepared according to the method outlined in **Scheme 4, step *a***. Compounds of Formula 4.1, wherein R_3 and R_{12} are as originally defined and may or may not be equivalent, can be prepared from compounds of Formula 4.0, wherein R_3 and R_{12} are as previously defined and may or may not be equivalent, by treating with a fluorination reagent, such as (diethylamino)sulfur trifluoride (DAST), in a halogenated solvent such as DCM at a temperature of about 0 °C to 23 °C, as depicted in ***a***.

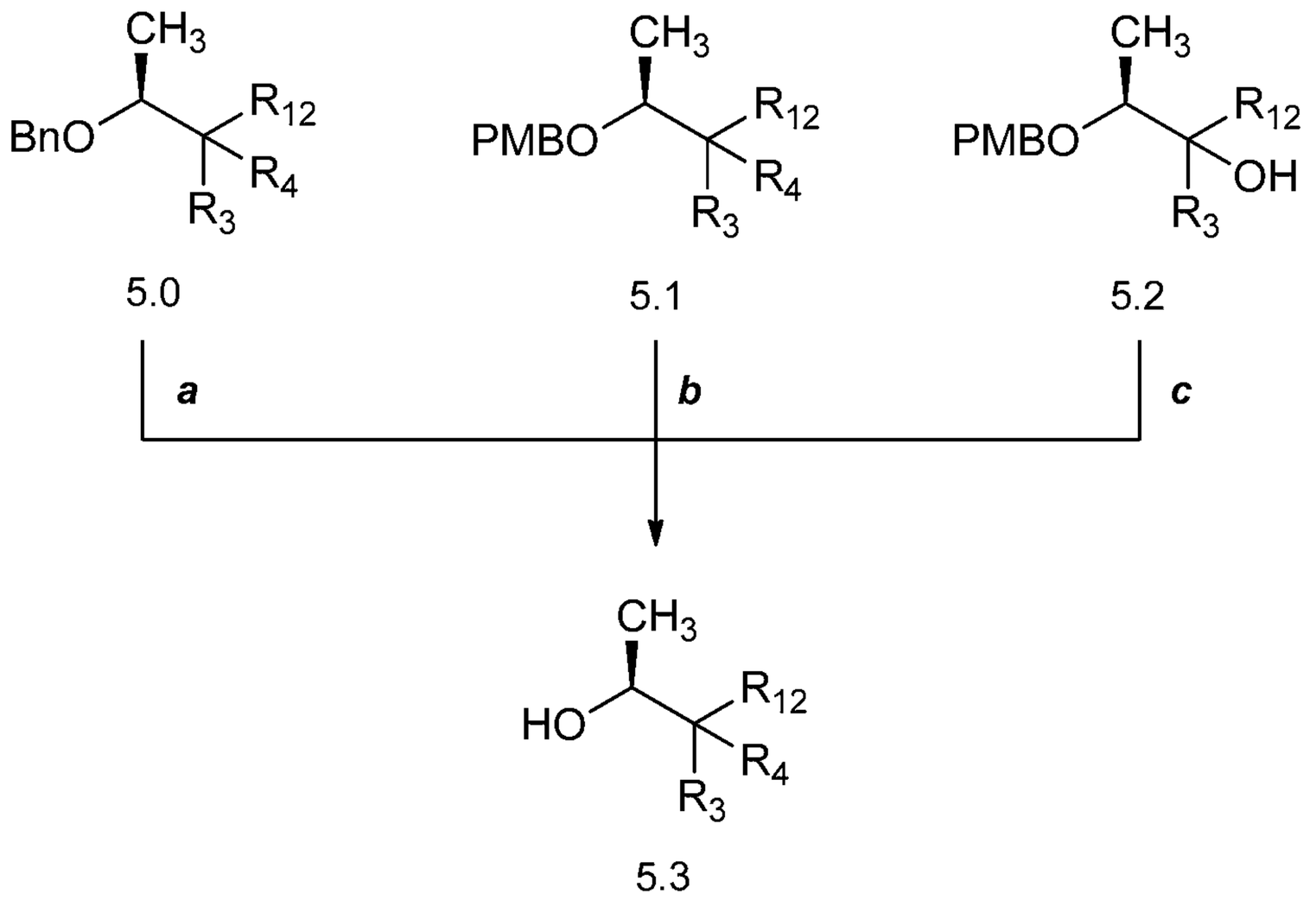
Scheme 4



4.0 4.1

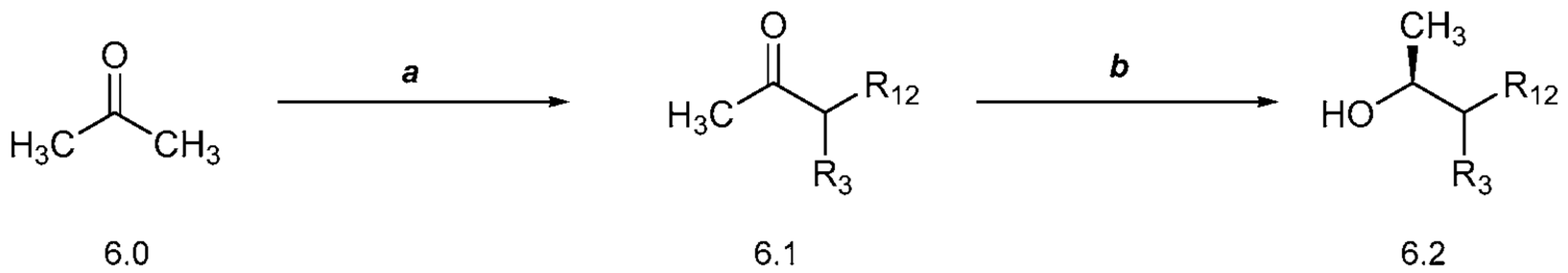
[0055] Compounds of Formula 5.3, wherein R_3, R_4, and R_{12} are as originally defined and R_3 may or may not be equivalent to R_{12}, can be prepared according to the methods outlined in **Scheme 5, steps *a* – *c***. Compounds of Formula 5.3, wherein R_3, R_4, and R_{12} are as originally defined and R_3 may or may not be equivalent to R_{12}, can be prepared from compounds of Formula 5.0, wherein R_3, R_4, and R_{12} are as originally defined and R_3 may or may not be equivalent to R_{12}, by treating with a catalyst such as palladium on carbon (Pd/C) in a mixture of an unsaturated hydrocarbon solvent, such as cyclohexene, and a polar protic solvent, such as ethanol (EtOH), at an elevated temperature of about 65 °C, as shown in ***a***. Alternatively, compounds of Formula 5.3, wherein R_3 and R_{12} are an electron-deficient aryl or heteroaryl group and may or may not be equivalent and R_4 is hydroxyl (OH) or alkoxy, can be obtained by treating compounds of Formula 5.1, wherein R_3, R_4, and R_{12} are as previously defined and R_3 may or may not be equivalent to R_{12}, with a mixture of a hydride reagent, such as Et_3SiH, and an acid, such as TFA in a halogenated solvent such as DCM at a temperature of about 0 °C to 23 °C, as indicated in ***b***. Additionally, compounds of Formula 5.3, wherein R_3 and R_{12} are as originally defined but not an electron-deficient aryl or heteroaryl group and may or may not be equivalent, and R_4 is a proton (H), can be obtained by treating the compounds of Formula 5.2, wherein R_3, R_4, and R_{12} are as previously defined and R_3 may or may not be equivalent to R_{12}, with a mixture of a hydride reagent, such as Et_3SiH, and an acid, such as TFA in a halogenated solvent such as DCM at a temperature of about 0 °C to 23 °C, as depicted in ***c***.

Scheme 5



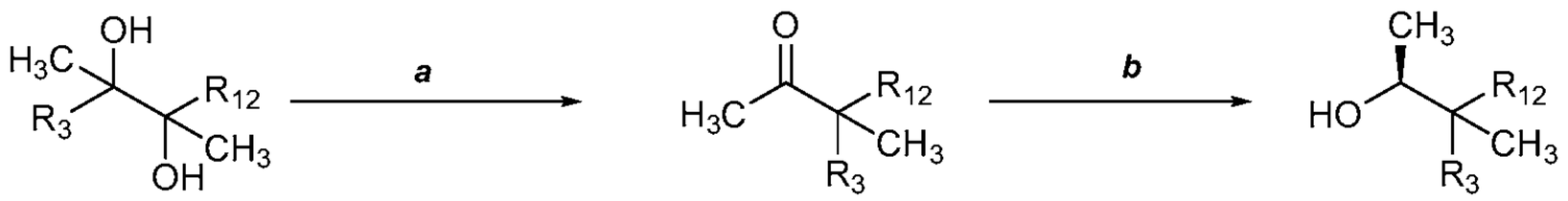
[0056] Compounds of Formula 6.2, wherein R_3 and R_{12} are an electron-deficient aryl or heteroaryl group and equivalent, can be prepared according to the methods outlined in **Scheme 6, steps *a* – *b***. Compounds of Formula 6.1, wherein R_3 and R_{12} are as described previously, can be prepared from compound of Formula 6.0, by treating with an aryl bromide, such as 4-bromobenzonitrile, in the presence of a Pd catalyst, such as XPhos Pd G3 (CAS # 1445085-55-1, commercially available from Sigma-Aldrich), in a polar aprotic solvent such as THF at a temperature of about 55 °C, as indicated in ***a***. Compounds of Formula 6.2, wherein R_3 and R_{12} are as described previously, can be prepared from compound of Formula 6.1, wherein R_3 and R_{12} are as described previously, by treating with a hydride reagent, such as borane dimethyl sulfide complex, in the presence of a catalyst, such as (*R*)-(+)-2-Methyl-CBS-oxazaborolidine, in a polar protic solvent, such as methanol (MeOH), at a temperature of about 0 °C, as indicated in ***b***.

Scheme 6



[0057] Compounds of Formula 7.2, wherein R_3 and R_{12} are as originally defined and equivalent, can be prepared according to the methods outlined in **Scheme 7, steps *a* – *b***. Compounds of Formula 7.1, wherein R_3 and R_{12} are as described previously, can be prepared from compounds of Formula 7.0, by treating with a catalyst, such as $SbCl_5$, in a halogenated solvent such as DCM at a temperature of about 23 °C, as indicated in ***a***. Compounds of Formula 7.2, wherein R_3 and R_{12} are as described previously, can be prepared from compound of Formula 7.1, wherein R_3 and R_{12} are as described previously, by treating with a hydride reagent, such as borane dimethyl sulfide complex, in the presence of a catalyst, such as (*R*)-(+)-2-Methyl-CBS-oxazaborolidine, in a polar protic solvent, such as methanol (MeOH), at a temperature of about 23 °C, as indicated in ***b***.

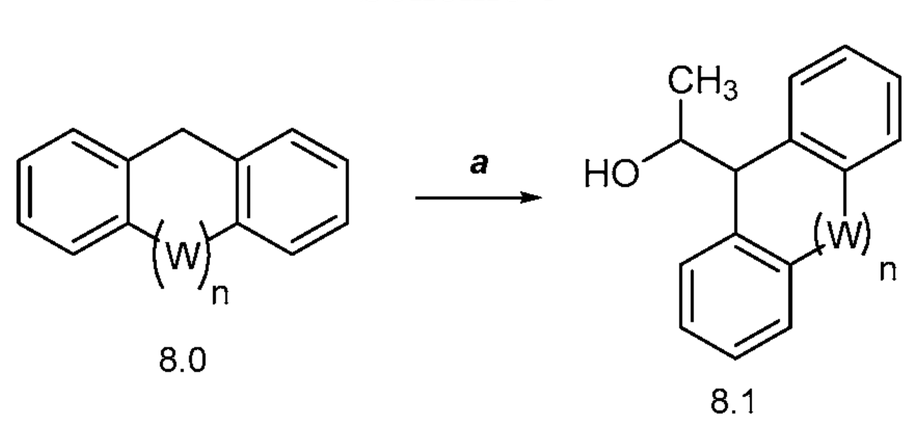
Scheme 7



7.0 7.1 7.2

[0058] Compounds of Formula 8.1, wherein n is either 0 or 1, and W is either CH_2 or O, can be prepared according to the method outlined in **Scheme 8, step *a***. Compounds of Formula 8.1, wherein n is either 0 or 1, and W is either CH_2 or O, can be prepared from compounds of Formula 8.0, wherein n is either 0 or 1, and W is either CH_2 or O, by treating with a base, such as *n*-butyllithium (*n*-BuLi), and an aldehyde, such as acetaldehyde, in a polar aprotic solvent such as THF at a temperature of about -78 °C to 23 °C, as indicated in ***a***.

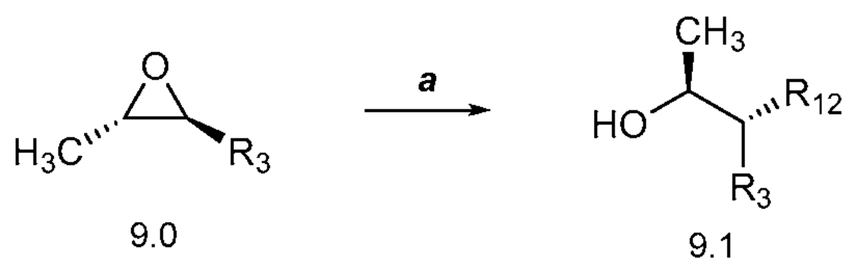
Scheme 8



8.0 8.1

[0059] Compounds of Formula 9.1, wherein R_3 and R_{12} are as originally defined, can be prepared according to the method outlined in **Scheme 9, step *a***. Compounds of Formula 9.1, wherein R_3 and R_{12} are as originally defined, can be prepared from compounds of Formula 9.0, wherein $R_3$is as originally defined (Formula 9.0 is either commerically available, or could be prepared from asymmetric Shi epoxidation of the corresponding *E*-olefin precursor, as reported in Wang, Z.-X.; Tu, Y.; Frohn, M.; Zhang, J.-R.; Shi, Y. *J. Am. Chem. Soc.* **1997**, *119*, 11224), by treating with a pre-mixed suspension of a copper(I) salt, such as copper iodide (CuI), and an organometallic nucleophile, such as 4-(trifluoromethyl)phenylmagnesium bromide in a polar aprotic solvent such as THF, at a temperature of about -78 °C to 23 °C, as shown in ***a***.

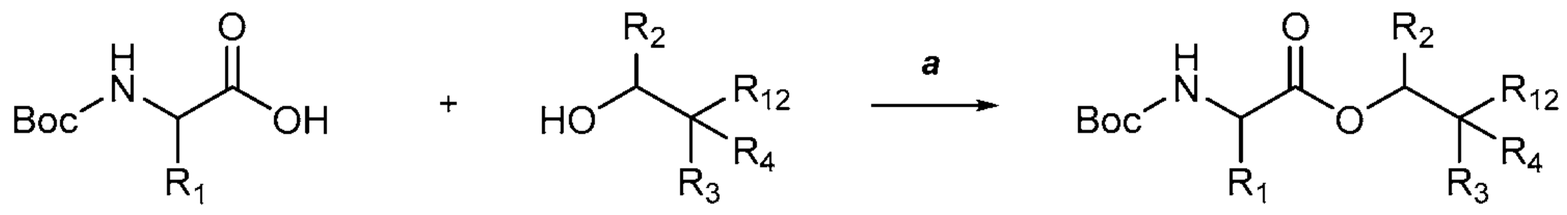
Scheme 9



9.0 9.1

[0060] Compounds of Formula 10.2, wherein R_1, R_2, R_3, R_4 and R_{12} are as originally defined, can be prepared according to the method outlined in **Scheme 10, step *a***. Compounds of Formula 10.0, wherein R_1 is as originally defined, can be treated with alcohols of Formula 10.1, wherein R_2, R_3, R_4 and R_{12} are as originally defined, and a coupling reagent such as 3-(ethyliminomethyleneamino)-*N*,*N*-dimethylpropan-1-amine hydrochloride (EDC), and a catalyst such as *N*,*N*-dimethylpyridin-4-amine (DMAP) in a halogenated solvent like DCM to afford compounds of Formula 10.2, wherein R_1, R_2, R_3, R_4 and R_{12} are as previously defined, as shown in ***a***.

Scheme 10

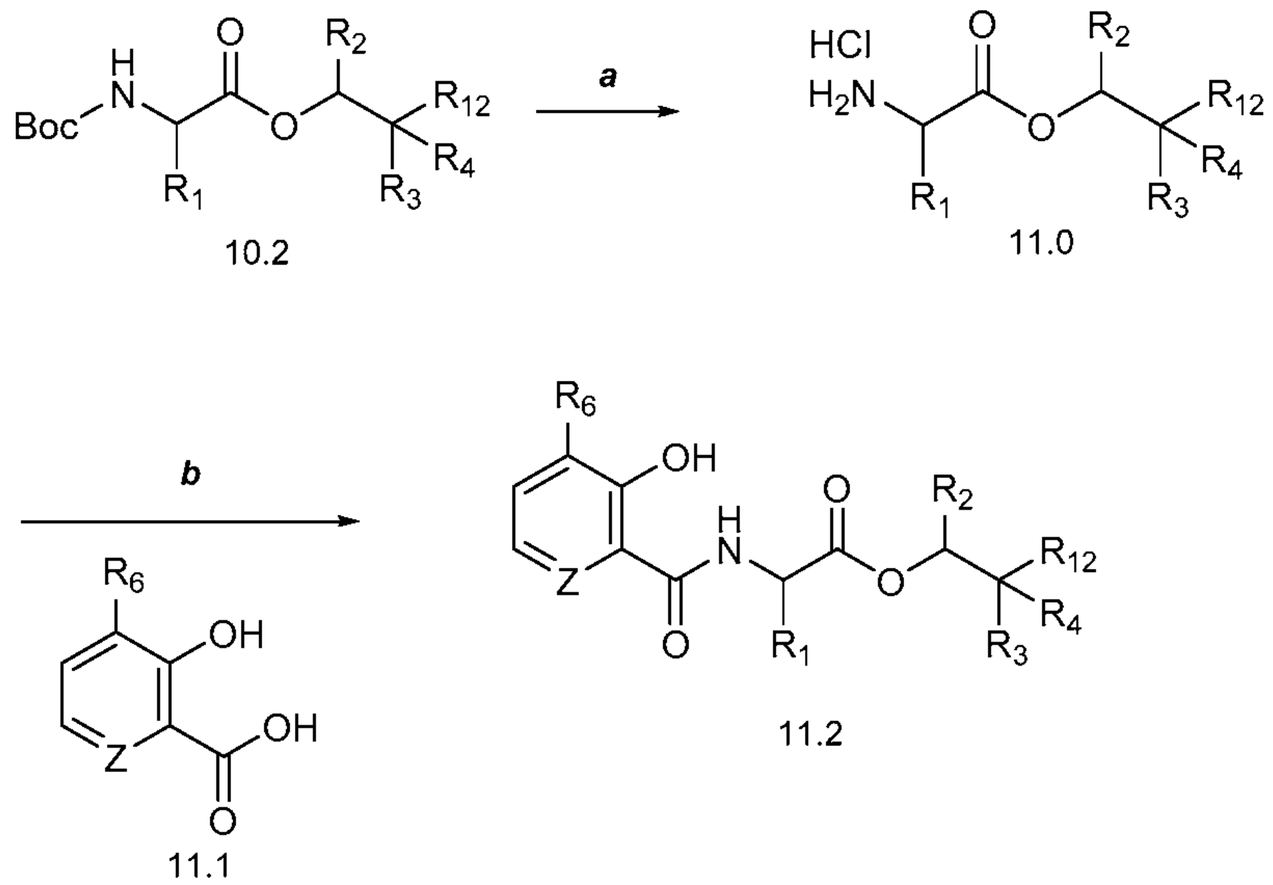


10.0 10.1 10.2

[0061] Compounds of Formula 11.2, wherein R_1, R_2, R_3, R_4, R_6, R_{12} and Z are as originally defined, can be prepared according to the methods outlined in **Scheme 11, steps *a* – *b***. As depicted in ***a***, compounds of Formula 11.2, wherein R_1, R_2, R_3, R_4 and R_{12} are as originally defined, can be subjected to an acid, such as a 4 normal (N) solution of hydrogen chloride (HCl) in dioxane, in a halogenated solvent such as DCM to afford compounds of Formula 9.0, wherein R_1, R_2, R_3, R_4 and R_{12} are as originally defined, as shown in ***a***.

[0062] Compounds of Formula 11.0, wherein R_1, R_2, R_3, R_4 and R_{12} are as originally defined, can be treated with compounds of Formula 11.1, wherein R_6 and Z are as originally defined, in the presence of a base, such as diisopropylethylamine (DIPEA), and a peptide coupling reagent, such as benzotriazol-1-yl-oxytripyrrolidinophosphonium hexafluorophosphate (PyBOP), in an halogenated solvent like DCM, to afford compounds of Formula 11.2, wherein R_1, R_2, R_3, R_4, R_6, R_{12} and Z are as originally defined, as shown in ***b***.

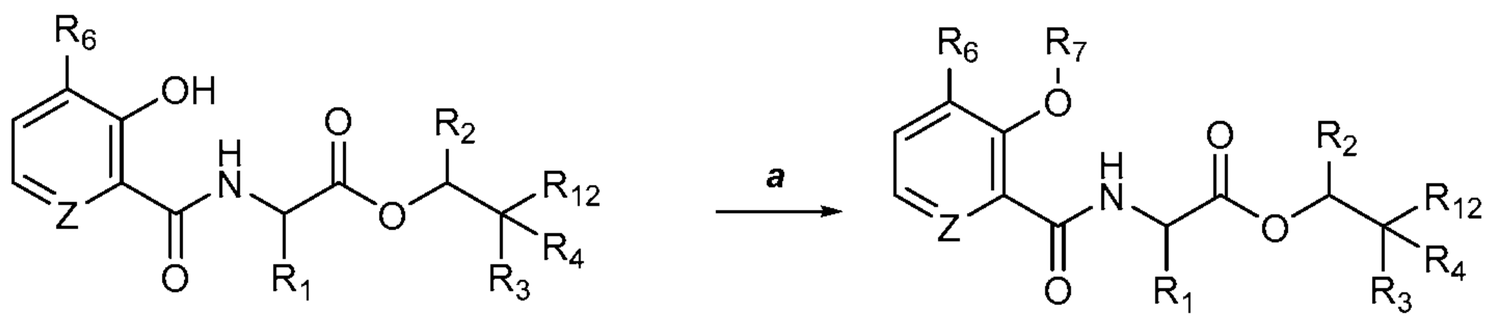
Scheme 11



[0063] Compounds of Formula 12.0, wherein R_1, R_2, R_3, R_4, R_6, R_7, R_{12} and Z are as originally defined, can be prepared according to the method outlined in **Scheme 12, step *a***. As shown in ***a***, compounds of Formula 11.2, wherein R_1, R_2, R_3, R_4, R_6, R_{12} and Z are as originally defined, can be treated with an appropriate alkyl halide with or without a reagent such as sodium iodide (NaI) and an alkali carbonate base, such as sodium carbonate (Na_2CO_3) or potassium

carbonate (K_2CO_3), in a solvent like acetone at a temperature of about 55 °C, or by treatment with an acyl halide in the presence of an amine base, such as pyridine, triethylamine (Et_3N), DMAP, or mixtures thereof, in an aprotic solvent such as DCM, at a temperature of about 23 °C, to afford compounds of Formula 12.0 wherein R_1, R_2, R_3, R_4, R_6, R_7, R_{12} and Z are as originally defined.

Scheme 12

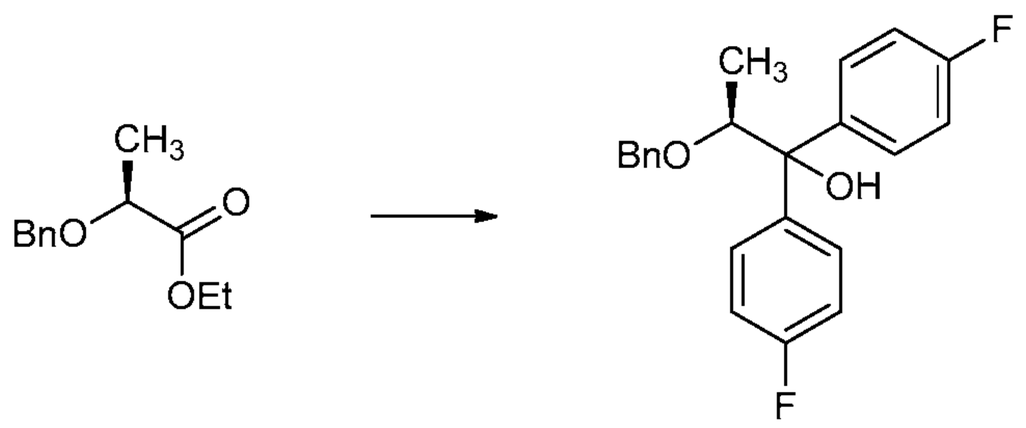


11.2 12.0

EXAMPLES

[0050] The chemistry in the following examples may be conducted using either enantiomer of 2-((*tert*-butoxycarbonyl)amino)propanoic acid (Boc-Ala-OH) or either protected (PMB or Bn) or unprotected enantiomer of ethyl lactate.

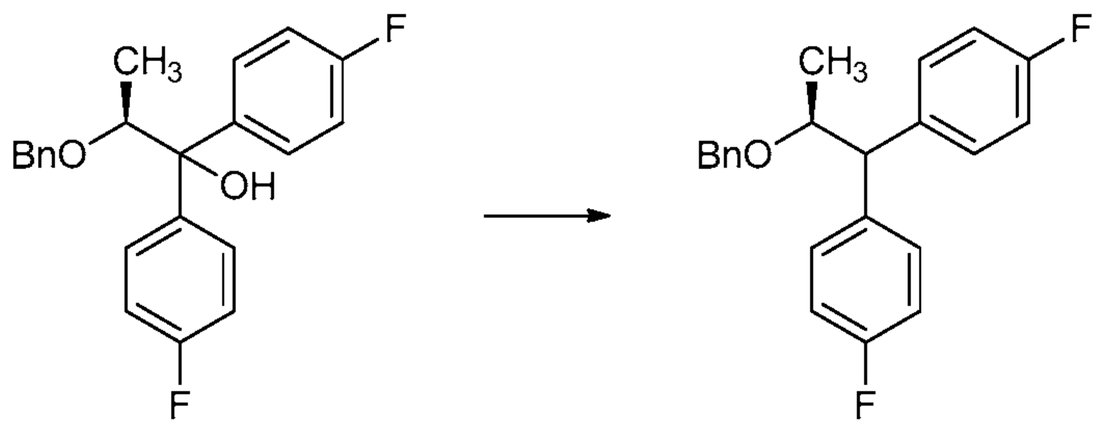
[0051] **Example 1:** Preparation of (*S*)-2-(benzyloxy)-1,1-bis(4-fluorophenyl)propan-1-ol.



[0052] To a solution of (*S*)-ethyl 2-(benzyloxy)propanoate (2.08 grams (g), 10.0 millimoles (mmol)) in tetrahydrofuran (THF; 20 milliliters (mL)) at 0 °C was slowly added (4-fluorophenyl)magnesium bromide (31.3 mL, 25.0 mmol, 0.8 molar (M) in THF) over a 10 minute (min) period. The reaction vessel was allowed to warm slowly to room temperature over 2 hours (h), and the reaction mixture was quenched by careful addition of saturated (sat.) aqueous (aq.) ammonium chloride (NH_4Cl; 50 mL). The mixture was diluted with diethyl ether (Et_2O; 50 mL), the

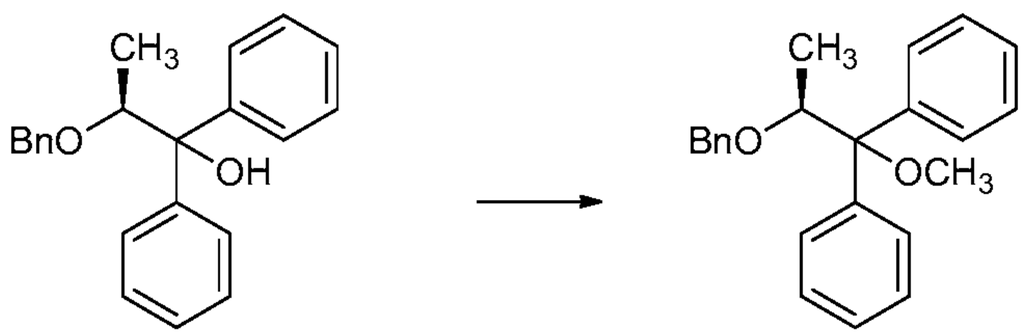
phases were separated, and the aq. phase was extracted with Et_2O (2 x 50 mL). The combined organic phases were washed with sat. aq. sodium chloride (NaCl, brine; 100 mL), dried over sodium sulfate (Na_2SO_4), filtered, and concentrated. The resulting oil was purified by flash column chromatography (silica gel (SiO_2), 0→5% acetone in hexanes) to afford the title compound (3.28 g, 93%) as a colorless oil: ^{1}H NMR (300 MHz, $CDCl_3$) δ 7.47 – 7.38 (m, 2H), 7.38 – 7.27 (m, 5H), 7.17 – 7.09 (m, 2H), 7.04 – 6.89 (m, 4H), 4.64 (dd, *J* = 11.4, 0.7 Hz, 1H), 4.51 – 4.38 (m, 2H), 3.12 (s, 1H), 1.11 (d, *J* = 6.1 Hz, 3H); ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.19, -116.41; ESIMS *m/z* 377 ($[M+Na]^+$).

[0053] **Example 2A:** Preparation of (*S*)-4,4'-(2-(benzyloxy)propane-1,1-diyl)bis(fluorobenzene).



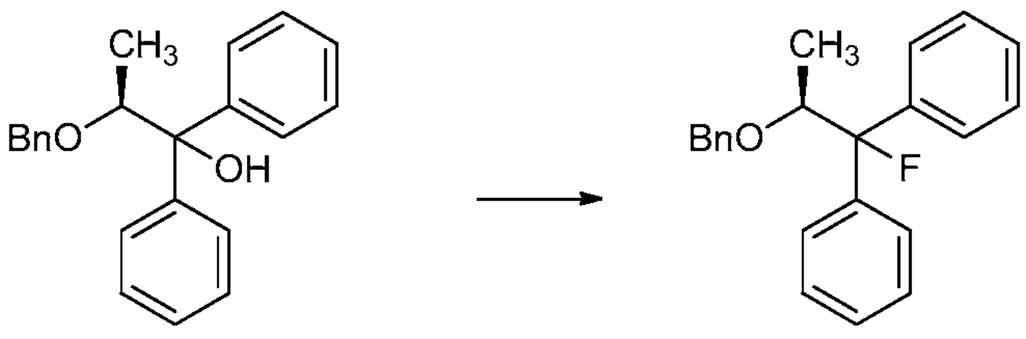
[0054] To a solution of (*S*)-2-(benzyloxy)-1,1-bis(4-fluorophenyl)propan-1-ol (709 milligrams (mg), 2.00 mmol) in dichloromethane (DCM; 20 mL) at 0 °C was added triethylsilane (Et_3SiH; 3.19 mL, 20.0 mmol) followed by 2,2,2-trifluoroacetic acid (TFA; 1.53 mL, 20.0 mmol). The mixture was stirred at 0 °C for 1 h. The resulting solution was quenched by careful addition of sat. aq. sodium bicarbonate ($NaHCO_3$; 20 mL). The phases were separated, and the aq. phase was extracted with DCM (2 x 30 mL). The combined organic phases were washed with brine (50 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→10% acetone in hexanes) to afford the title compound (627 mg, 92%) as a white solid: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 – 7.22 (m, 5H), 7.21 – 7.16 (m, 2H), 7.10 – 7.03 (m, 2H), 7.00 – 6.91 (m, 4H), 4.54 (dd, *J* = 11.5, 0.7 Hz, 1H), 4.31 (dd, *J* = 11.6, 0.8 Hz, 1H), 4.14 (dq, *J* = 8.1, 6.1 Hz, 1H), 3.93 (d, *J* = 8.1 Hz, 1H), 1.18 (d, *J* = 6.0 Hz, 3H); ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.60, -117.10; ESIMS (*m/z*) 361 ($[M+Na]^+$).

[0055] **Example 2B:** Preparation of (*S*)-(2-(benzyloxy)-1-methoxypropane-1,1-diyl)dibenzene.



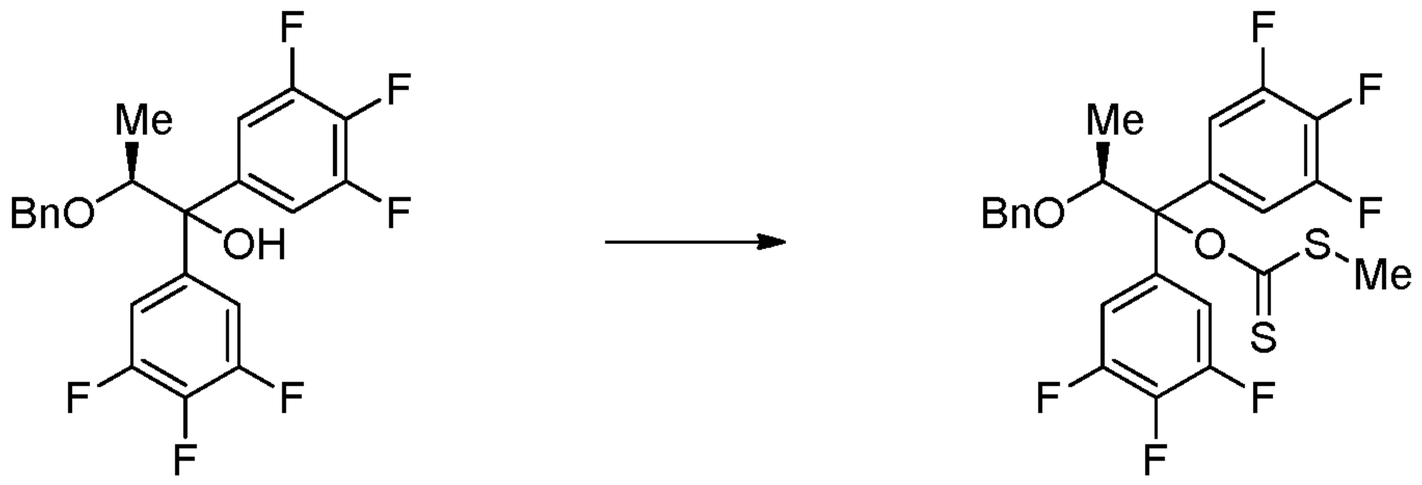
[0056] To a suspension of sodium hydride (NaH; 52.0 mg, 1.30 mmol, 60% weight per weight (w/w) in mineral oil) in *N,N*-dimethylformamide (DMF; 3 mL) at 0 °C was added a solution of (*S*)-2-(benzyloxy)-1,1-diphenylpropan-1-ol (318 mg, 1 mmol) in DMF (1 mL). The reaction mixture was stirred at room temperature for 30 min and then cooled to 0 °C. Iodomethane (MeI; 93.0 microliters (μL), 1.50 mmol) was added, and the reaction mixture was stirred at room temperature for 1 h. The resulting solution was quenched by careful addition of sat. aq. $NaHCO_3$ (10 mL). The mixture was diluted with diethyl ether (Et_2O; 10 mL), the phases were separated, and the aq. phase was extracted with Et_2O (2 x 10 mL). The combined organic phases were washed with brine (20 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→5% acetone in hexanes) to afford the title compound (295 mg, 89%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.47 – 7.41 (m, 2H), 7.40 – 7.35 (m, 2H), 7.33 – 7.18 (m, 11H), 4.69 (d, *J* = 11.9 Hz, 1H), 4.54 (d, *J* = 12.3 Hz, 1H), 4.50 (q, *J* = 6.1 Hz, 1H), 3.13 (s, 3H), 1.10 (d, *J* = 6.1 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 142.96, 141.31, 138.79, 129.13, 128.54, 128.14, 127.61, 127.16, 127.08, 126.95, 126.69, 99.99, 85.35, 78.13, 70.80, 52.46, 13.65; ESIMS (*m/z*) 333 ($[M+H]^+$).

[0057] **Example 2C:** Preparation of (*S*)-(2-(benzyloxy)-1-fluoropropane-1,1-diyl)dibenzene.



[0058] To a solution of (*S*)-2-(benzyloxy)-1,1-diphenylpropan-1-ol (300 mg, 0.942 mmol) in DCM (5 mL) at 0 °C was added (diethylamino)sulfur trifluoride (DAST; 1.88 mL, 1.88 mmol, 1 M in DCM). The reaction was slowly warmed to room temperature over 3 h. The resulting solution was quenched by careful addition of sat. aq. $NaHCO_3$ (5 mL). The phases were separated, and the aq. phase was extracted with DCM (2 x 10 mL). The combined organic phases were washed with brine (10 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→10% acetone in hexanes) to afford the title compound (300 mg, 98%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.58 – 7.49 (m, 2H), 7.43 – 7.37 (m, 2H), 7.36 – 7.20 (m, 9H), 7.09 – 6.99 (m, 2H), 4.47 (d, *J* = 11.7 Hz, 1H), 4.37 – 4.25 (m, 2H), 1.26 (dd, *J* = 6.3, 1.3 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 142.23 (d, *J* = 22.7 Hz), 141.00 (d, *J* = 23.5 Hz), 138.03, 128.21, 128.16, 127.90 (d, *J* = 1.5 Hz), 127.80, 127.72 (d, *J* = 1.7 Hz), 127.52, 127.42 (d, *J* = 1.3 Hz), 126.23 (d, *J* = 9.6 Hz), 125.93 (d, *J* = 8.7 Hz), 99.96 (d, *J* = 180.8 Hz), 78.91 (d, *J* = 26.9 Hz), 71.68, 14.47 (d, *J* = 3.6 Hz); ^{19}F NMR (376 MHz, $CDCl_3$) δ -159.80.

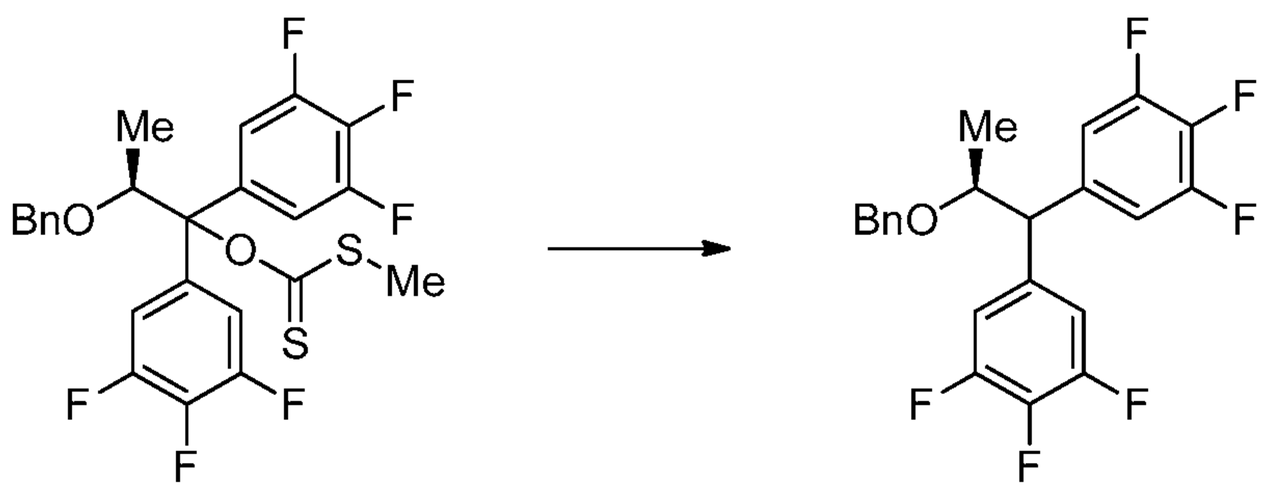
[0059] **Example 2D, Step 1:** Preparation of (*S*)-*O*-(2-(benzyloxy)-1,1-bis(3,4,5-trifluorophenyl)propyl) *S*-methyl carbonodithioate.



[0060] To a solution of (*S*)-2-(benzyloxy)-1,1-bis(3,4,5-trifluorophenyl)propan-1-ol (496 mg, 1.16 mmol) in anhydrous THF (5.8 mL) was added NaH (93.0 mg, 2.33 mmol), followed by imidazole (3.96 mg, 0.0580 mmol), and the reaction mixture was stirred at ambient temperature for 1 h. Carbon disulfide (562 µL, 9.30 mmol) was added via syringe in one portion, followed by MeI (579 µL, 9.30 mmol), and the reaction mixture was stirred at ambeint temperature for 2 h. The reaction mixture was diluted with Et_2O (5 mL) and quenched with sat. aq. NH_4Cl (10 mL). The layers were separated, and the aq. layer was extracted with Et_2O (3 x 10 mL). The combined organic layers were dried over magnesium sulfate ($MgSO_4$), filtered and concentrated to afford an

orange/brown oil. The crude oil was purified by flash column chromatography (SiO_2, 0→50% ethyl acetate (EtOAc) in hexanes) to afford the title compound (627 mg, 94%) as a clear, bright yellow colored oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.40 – 7.27 (m, 3H), 7.24 – 7.16 (m, 2H), 7.02 (dd, *J* = 9.1, 6.6 Hz, 2H), 6.96 (dd, *J* = 8.8, 6.5 Hz, 2H), 5.44 (q, *J* = 6.1 Hz, 1H), 4.66 (d, *J* = 11.6 Hz, 1H), 4.51 (d, *J* = 11.6 Hz, 1H), 2.49 (s, 3H), 1.16 (d, *J* = 6.1 Hz, 3H); ^{19}F NMR (376 MHz, $CDCl_3$) δ -133.89 (d, *J* = 20.7 Hz), -134.73 (d, *J* = 20.6 Hz), -159.83 (t, *J* = 20.6 Hz), -160.56 (t, *J* = 20.7 Hz); (Thin film) 2922, 1721, 1622, 1595, 1526, 1436, 1344, 1241, 1217, 1197, 1119, 1088, 1040, 965, 908, 861, 822, 730, 712, 697, 672 cm^{-1}.

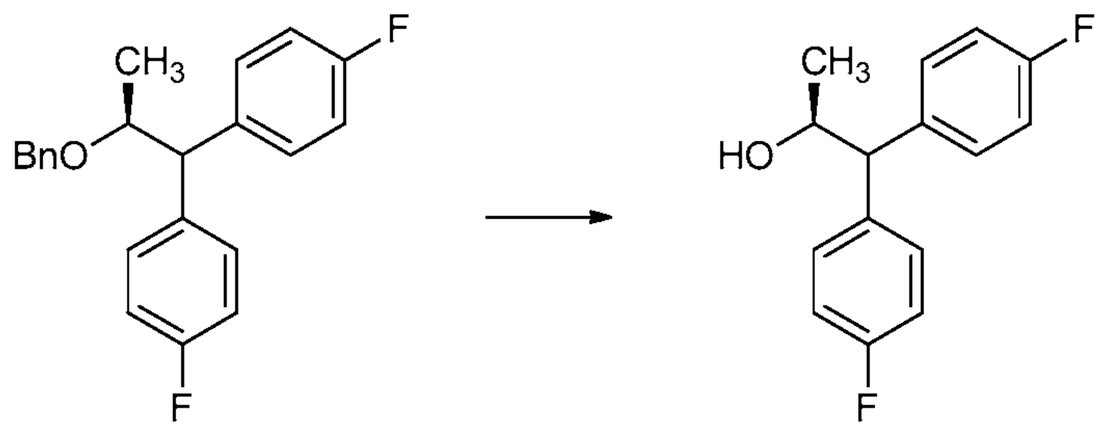
[0061] **Example 2D, Step 2:** Preparation of (*S*)-5,5'-(2-(benzyloxy)propane-1,1-diyl)bis(1,2,3-trifluorobenzene).



[0062] A solution of (*S*)-*O*-(2-(benzyloxy)-1,1-bis(3,4,5-trifluorophenyl)propyl) *S*-methyl carbonodithioate (598 mg, 1.16 mmol) in toluene (200 mL) was degassed by a freeze-pump-thaw procedure (3 cycles using liquid nitrogen (N_2)) under an atmosphere of N_2. Tributyltin hydride (3.12 mL, 11.6 mmol) was then added, the reaction flask was fitted with a reflux condenser, and the reaction mixture was heated to a light reflux (115 °C). A solution of azobisisobutyronitrile (AIBN; 0.200 g, 1.22 mmol) in degassed toluene (3 cycles via liquid N_2; 32 mL) was added via syringe down the reflux condenser over 3 h. Once slow addition of the AIBN was complete, the reaction mixture was stirred at reflux overnight. The solvent was removed *in vacuo* to provide a pale yellow oil. The crude oil was purified by flash column chromatography (SiO_2, 0→30% EtOAc in hexanes) to afford the title compound (358 mg, 72%) as a clear, colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.28 (d, *J* = 6.6 Hz, 3H), 7.17 – 7.06 (m, 2H), 6.92 (dd, *J* = 8.5, 6.5 Hz, 2H), 6.79 (dd, *J* = 8.3, 6.4

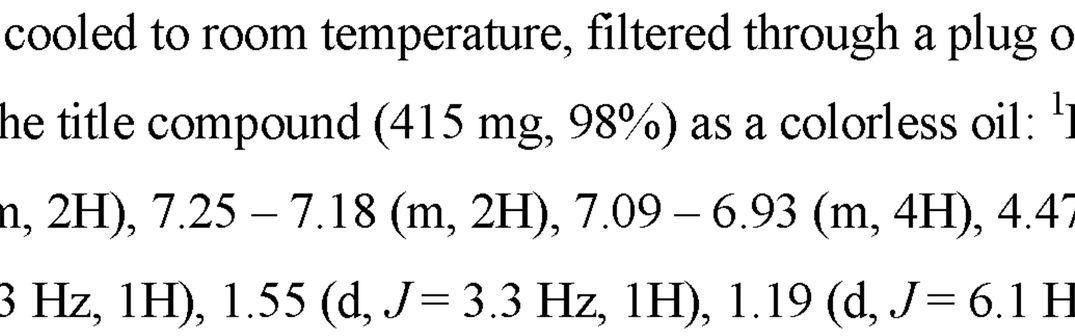
Hz, 2H), 4.59 (d, *J* = 11.7 Hz, 1H), 4.31 (d, *J* = 11.7 Hz, 1H), 4.02 (p, *J* = 6.2 Hz, 1H), 3.76 (d, *J* = 6.8 Hz, 1H), 1.19 (d, *J* = 6.1 Hz, 3H); ^{19}F NMR (376 MHz, $CDCl_3$) δ -133.80 (d, *J* = 20.5 Hz), -134.34 (d, *J* = 20.5 Hz), -162.54 (t, *J* = 20.5 Hz), -162.84 (t, *J* = 20.5 Hz); (Thin film) 2871, 1621, 1526, 1445, 1345, 1262, 1235, 1116, 1096, 1043, 859, 802, 728, 698, 679 cm^{-1}.

[0063] **Example 3A:** Preparation of (*S*)-1,1-bis(4-fluorophenyl)propan-2-ol.



[0064] To a solution of (*S*)-4,4'-(2-(benzyloxy)propane-1,1-diyl)bis(fluorobenzene) (575 mg, 1.70 mmol) in ethanol (EtOH; 11 mL) and cyclohexene (5.5 mL) at room temperature was added palladium on carbon (Pd/C; 362 mg, 0.0850 mmol, 2.5% w/w of Pd). The reaction mixture was stirred at 65 °C for 2 h, cooled to room temperature, filtered through a plug of Celite®, and concentrated to afford the title compound (415 mg, 98%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.36 – 7.29 (m, 2H), 7.25 – 7.18 (m, 2H), 7.09 – 6.93 (m, 4H), 4.47 (dqd, *J* = 8.2, 6.1, 3.3 Hz, 1H), 3.80 (d, *J* = 8.3 Hz, 1H), 1.55 (d, *J* = 3.3 Hz, 1H), 1.19 (d, *J* = 6.1 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 162.90 (d, *J* = 23.3 Hz), 160.46 (d, *J* = 23.1 Hz), 138.15 (d, *J* = 3.1 Hz), 136.94 (d, *J* = 3.6 Hz), 130.14 (d, *J* = 7.8 Hz), 129.55 (d, *J* = 7.8 Hz), 115.70 (d, *J* = 18.8 Hz), 115.49 (d, *J* = 18.8 Hz), 70.07, 58.61, 21.63; ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.84, -116.19.

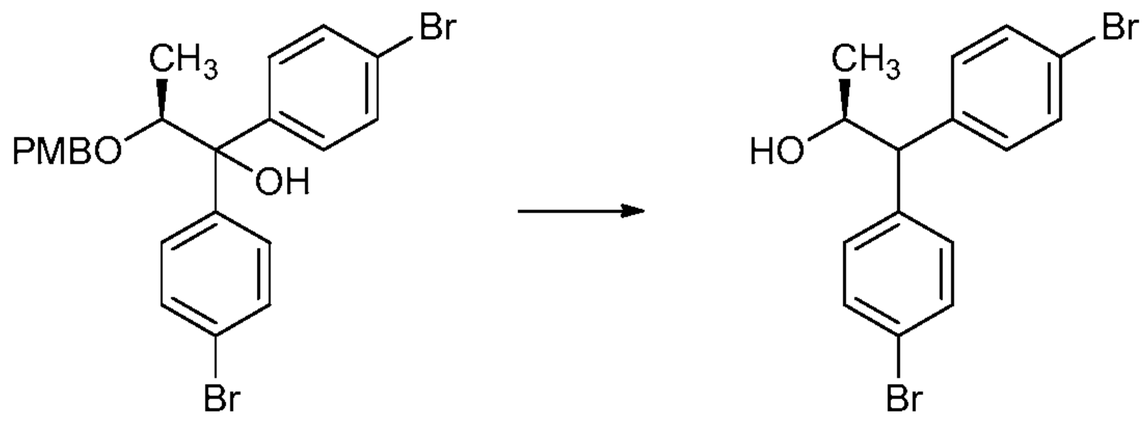
[0065] **Example 3B:** Preparation of (*S*)-1,1-bis(2-fluorophenyl)propane-1,2-diol.



[0066] To a solution of (*S*)-1,1-bis(2-fluorophenyl)-2-((4-methoxybenzyl)oxy)propan-1-ol (790 mg, 2.06 mmol) in DCM (20 mL) at 0 °C was added Et_3SiH (3.28 mL, 20.6 mmol) followed

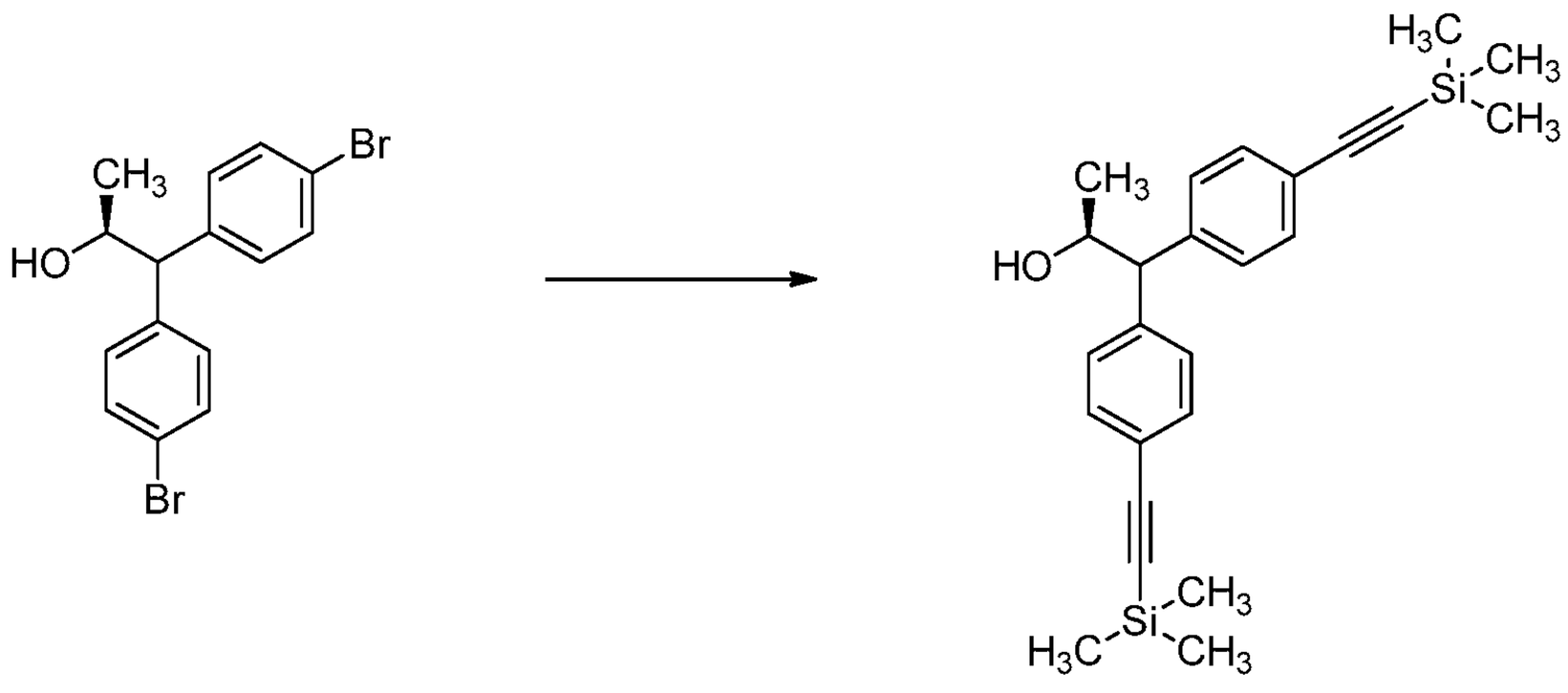
by TFA (1.57 mL, 20.6 mmol). The mixture was stirred at 0 °C for 1 h. The resulting solution was quenched by careful addition of sat. aq. $NaHCO_3$ (20 mL). The phases were separated, and the aq. phase was extracted with DCM (2 x 30 mL). The combined organic phases were washed with brine (50 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→10% acetone in hexanes) to afford the title compound (388 mg, 71%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.90 – 7.77 (m, 1H), 7.70 (tt, *J* = 8.2, 1.5 Hz, 1H), 7.31 – 7.10 (m, 4H), 6.97 (ddd, *J* = 12.7, 8.1, 1.3 Hz, 1H), 6.88 (ddd, *J* = 11.8, 8.0, 1.4 Hz, 1H), 5.11 (qd, *J* = 6.3, 2.3 Hz, 1H), 3.49 (s, 1H), 2.27 (s, 1H), 1.09 (d, *J* = 6.3 Hz, 3H); ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.90 (d, *J* = 8.3 Hz), -113.92 (d, *J* = 8.4 Hz); ESIMS (*m/z*) 551 ($[2M+Na]^+$).

[0067] **Example 3C:** Preparation of (*S*)-1,1-bis(4-bromophenyl)propan-2-ol.



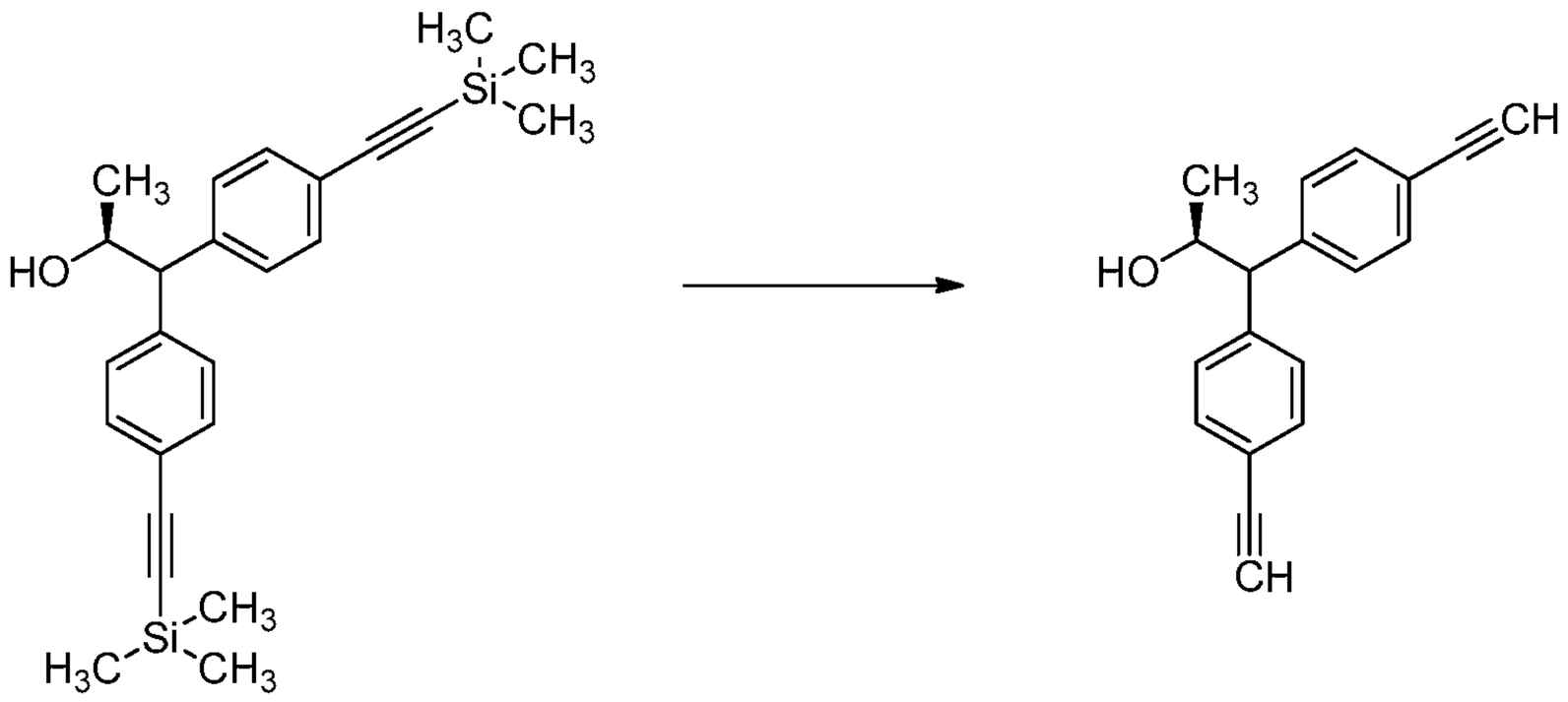
[0068] To a solution of (*S*)-1,1-bis(4-bromophenyl)-2-((4-methoxybenzyl)oxy)propan-1-ol (1.80 g, 3.56 mmol) in DCM (18 mL) at 0 °C was added Et_3SiH (5.68 mL, 35.6 mmol) followed by TFA (2.72 mL, 35.6 mmol). The mixture was warmed slowly to room temperature over 3 h. The resulting solution was quenched by careful addition of sat. aq. $NaHCO_3$ (20 mL). The phases were separated, and the aq. phase was extracted with DCM (2 x 30 mL). The combined organic phases were washed with brine (50 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→10% acetone in hexanes) to afford the title compound (742 mg, 56%) as a colorless oil: ^{1}H NMR (300 MHz, $CDCl_3$) δ 7.51 – 7.36 (m, 4H), 7.25 – 7.17 (m, 2H), 7.18 – 7.06 (m, 2H), 4.48 (dq, *J* = 8.2, 6.1 Hz, 1H), 3.76 (d, *J* = 8.2 Hz, 1H), 2.80 (s, 1H), 1.19 (d, *J* = 6.2 Hz, 3H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 140.94, 139.85, 131.98, 131.85, 130.39, 129.84, 121.06, 120.72, 69.82, 58.91, 21.65; (Thin film) 3390, 3024, 2969, 2900, 1486, 1072 cm^{-1}.

[0069] **Example 3D, Step 1:** Preparation of (*S*)-1,1-bis(4-((trimethylsilyl)ethynyl)-phenyl)propan-2-ol.



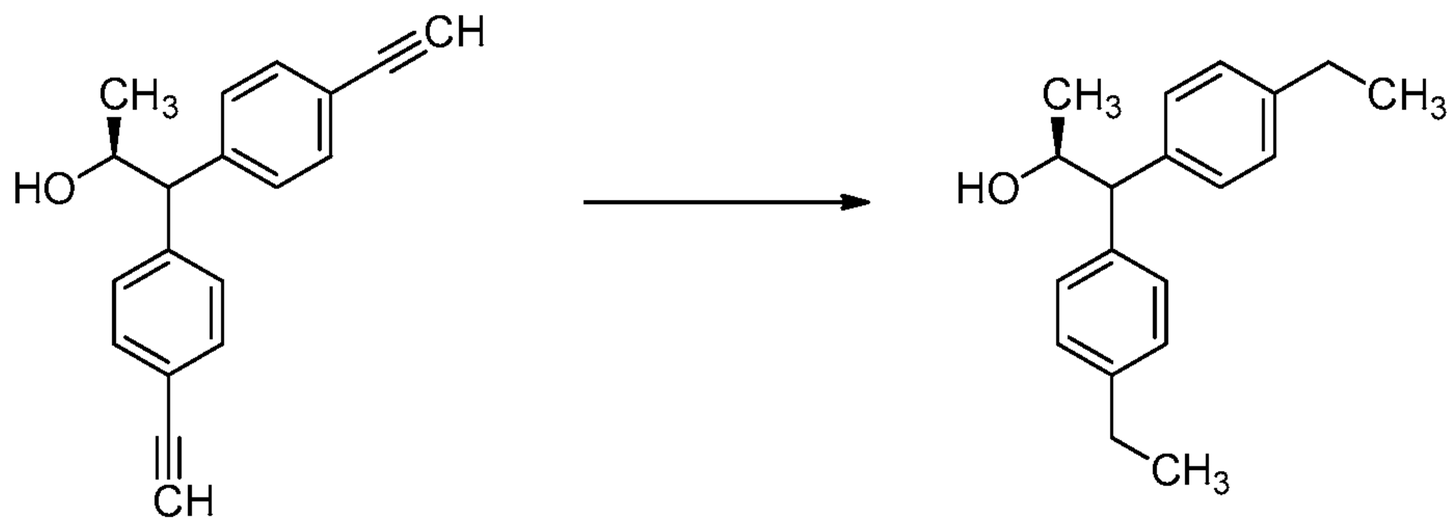
[0070] To a solution of (*S*)-1,1-bis(4-bromophenyl)propan-2-ol (1.01 g, 2.72 mmol) in THF (9 mL) was added bis(triphenylphosphine)palladium dichloride (0.095 g, 0.136 mmol) and copper(I) iodide (CuI; 0.026 g, 0.136 mmol). The mixture was sparged with N_2 for 20 min, and triethylamine (Et_3N; 4.53 mL) was added dropwise. To the resulting mixture was added ethynyltrimethylsilane (1.15 mL, 8.15 mmol) dropwise, and the mixture was heated to reflux and stirred overnight. The mixture was cooled to room temperature, and the reaction was quenched with sat. aq. $NaHCO_3$. The products were extracted with EtOAc (2x), and the combined organic layers were washed with brine, dried over Na_2SO_4, filtered and concentrated. The crude residue was then purified by flash column chromatography (SiO_2, 0→20% acetone in hexanes) to provide the title compound (495 mg, 45%) as a brown foam: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.48 – 7.42 (m, 2H), 7.42 – 7.37 (m, 2H), 7.33 – 7.27 (m, 2H), 7.24 – 7.17 (m, 2H), 4.51 (dqd, *J* = 12.2, 6.1, 3.5 Hz, 1H), 3.81 (d, *J* = 8.3 Hz, 1H), 1.60 (d, *J* = 3.8 Hz, 1H), 1.18 (d, *J* = 6.1 Hz, 3H), 0.26 (s, 9H), 0.26 (s, 9H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 142.55, 141.48, 132.42, 132.29, 128.69, 128.15, 121.90, 121.57, 104.76, 104.71, 94.49, 94.33, 69.76, 59.96, 21.55, 0.00; (Thin film) 3397, 2960, 2156, 1501, 1248, 861, 840 cm^{-1}; HRMS-ESI (*m/z*) $[M+H]^+$ calcd for $C_{25}H_{33}OSi_2$, 405.2064; found, 405.2070.

[0071] **Example 3D, Step 2:** Preparation of (*S*)-1,1-bis(4-ethynylphenyl)propan-2-ol.



[0072] To a solution of (*S*)-1,1-bis(4-((trimethylsilyl)ethynyl)phenyl)propan-2-ol (0.470 g, 1.16 mmol) in methanol (MeOH; 5.8 mL) was added potassium carbonate (K_2CO_3; 0.482 g, 3.48 mmol). The mixture was stirred for 1 h at room temperature and then filtered through Celite®. The filter cake was washed with MeOH, and the filtrate was concentrated. The crude material was purified by flash column chromatography (SiO_2, 0→20% acetone in hexanes) to provide the title compound (288 mg, 95%) as a yellow oil: ^{1}H NMR (300 MHz, $CDCl_3$) δ 7.48 – 7.43 (m, 2H), 7.43 – 7.39 (m, 2H), 7.35 – 7.29 (m, 2H), 7.24 – 7.19 (m, 2H), 4.51 (dqd, *J* = 8.3, 6.1, 3.7 Hz, 1H), 3.82 (d, *J* = 8.3 Hz, 1H), 3.05 (s, 1H), 3.04 (s, 1H), 1.63 – 1.55 (m, 1H), 1.18 (d, *J* = 6.1 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 142.84, 141.82, 132.60, 132.48, 128.74, 128.22, 120.87, 120.57, 83.31, 83.29, 77.39, 77.29, 69.73, 59.96, 21.66; (Thin film) 3436, 3280, 2968, 2106, 1499, 1075, 825 cm^{-1}; HRMS-ESI (*m/z*) $[M+H]^+$ calcd for $C_{19}H_{17}O$, 261.1274; found, 261.1272.

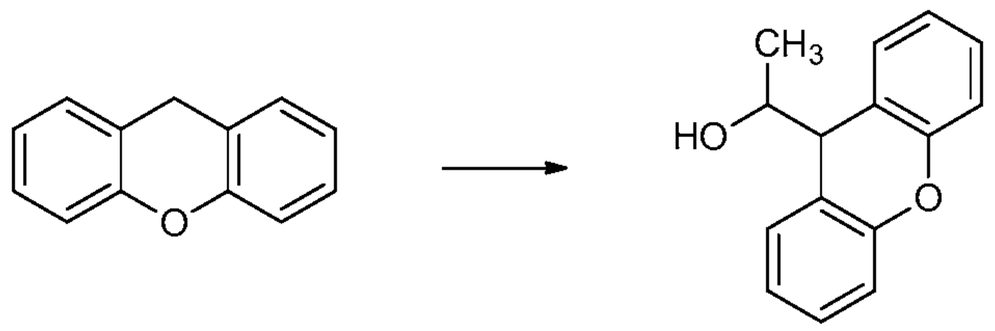
[0073] **Example 3D, Step 3:** Preparation of (*S*)-1,1-bis(4-ethylphenyl)propan-2-ol.



[0074] To a solution of (*S*)-1,1-bis(4-ethynylphenyl)propan-2-ol (0.144 g, 0.553 mmol) in EtOAc (2.8 mL) was added palladium (5% weight (wt) on carbon, dry basis; 0.235 g, 0.055 mmol).

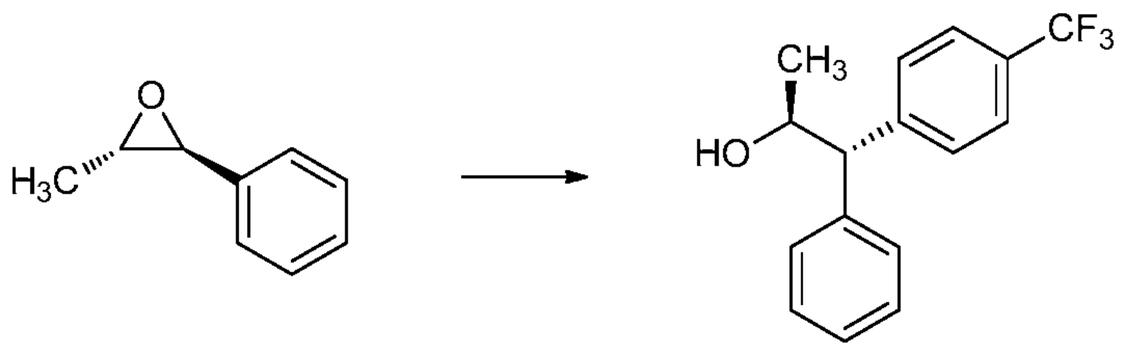
The mixture was stirred under a balloon of hydrogen overnight. The mixture was filtered through Celite®, and the filter cake was washed with EtOAc. The combined filtrate was then concentrated, and the crude residue was purified by flash column chromatography (SiO_2, 0→25% acetone in hexanes) to provide the title compound (97.0 mg, 65%) as a clear oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 – 7.25 (m, 2H), 7.22 –7 .15 (m, 2H), 7.18 – 7.11 (m, 2H), 7.10 (d, J = 8.1 Hz, 2H), 4.51 (dqd, J = 8.7, 6.1, 2.5 Hz, 1H), 3.74 (d, J = 8.9 Hz, 1H), 2.65 – 2.53 (m, 4H), 1.68 (d, J = 2.8 Hz, 1H), 1.23 – 1.14 (m, 9H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 142.74, 142.33, 139.94, 138.91, 128.48, 128.40, 128.07, 128.02, 70.19, 60.02, 28.41, 28.39, 21.37, 15.47, 15.46; (Thin film) 3421, 2963, 1510, 1110, 821 cm^{-1}; HRMS-ESI (*m/z*) ([M+Na]$^+$) calcd for $C_{19}H_{24}NaO$, 291.1719; found, 291.1725.

[0075] **Example 3E:** Preparation of 1-(9*H*-xanthen-9-yl)ethanol.



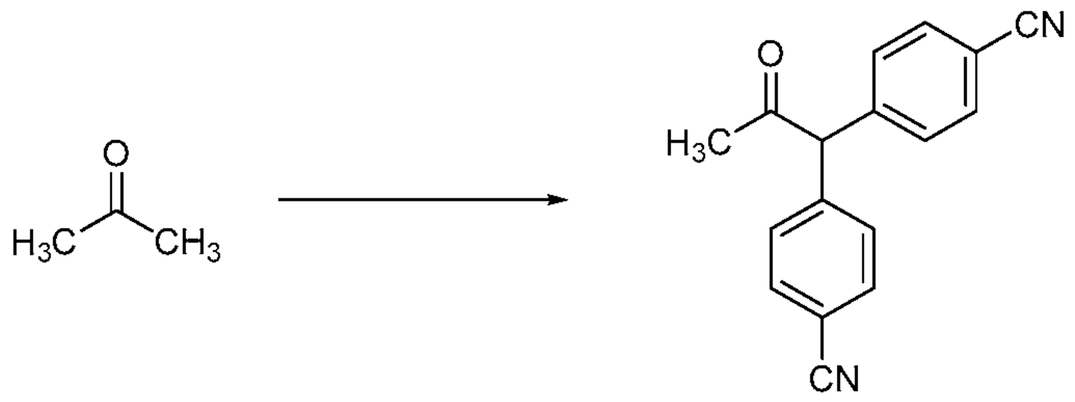
[0076] To a solution of 9*H*-xanthene (364 mg, 2.00 mmol) in THF (10 mL) at -78 °C was added *n*-butyllithium (2.5 M in hexanes; 0.880 mL, 2.20 mmol). The mixture was stirred at -78 °C for 30 min. Acetaldehyde (0.226 mL, 4.00 mmol) was added, and the reaction mixture was warmed slowly to room temperature overnight. The resulting solution was quenched by careful addition of sat. aq. NH_4Cl (10 mL). The phases were separated, and the aq. phase was extracted with Et_2O (2 x 15 mL). The combined organic phases were washed with brine (20 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→10% acetone in hexanes) to afford the title compound (216 mg, 48%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 – 7.22 (m, 4H), 7.17 – 7.04 (m, 4H), 3.99 (d, J = 5.1 Hz, 1H), 3.96 – 3.82 (m, 1H), 1.54 (d, J = 6.0 Hz, 1H), 1.00 (d, J = 6.3 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 152.94, 152.65, 129.54, 129.30, 128.19, 128.17, 123.18, 123.14, 122.48, 121.73, 116.59, 116.41, 73.07, 47.06, 18.81; ESIMS (*m/z*) 475 ([2M+Na]$^+$).

[0077] **Example 3F:** Preparation of (1*S*,2*S*)-1-phenyl-1-(4-(trifluoromethyl)phenyl)propan-2-ol.



[0078] To a mixture of magnesium turnings (102 mg, 4.20 mmol) in Et_2O (4 mL) was added 1-bromo-4-(trifluoromethyl)benzene (0.588 mL, 4.20 mmol) at room temperature, followed by MeI (5 µL). Upon warming to a gentle boil using a heat gun, the mixture turned a yellow/brown color. The reaction was then stirred in a water bath at room temperature for 30 min until almost all the magnesium was consumed. This was added to a suspension of copper(I) iodide (CuI; 400 mg, 2.10 mmol) in Et_2O (4 mL) at -78 °C. The reaction was stirred at -20 °C for 30 min, then cooled to -78 °C, and (2*S*,3*S*)-2-methyl-3-phenyloxirane (0.201 mL, 1.50 mmol) was added. The resulting mixture was warmed slowly to room temperature overnight. The resulting solution was quenched by careful addition of sat. aq. NH_4Cl (10 mL). The phases were separated, and the aq. phase was extracted with Et_2O (2 x 15 mL). The combined organic phases were washed with brine (20 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→10% acetone in hexanes) to afford the title compound (390 mg, 94%) as a light yellow oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.60 – 7.50 (m, 2H), 7.48 – 7.38 (m, 2H), 7.38 – 7.33 (m, 4H), 7.30 – 7.23 (m, 1H), 4.58 (dqd, *J* = 8.4, 6.1, 3.5 Hz, 1H), 3.88 (d, *J* = 8.5 Hz, 1H), 1.65 (d, *J* = 3.6 Hz, 1H), 1.20 (d, *J* = 6.1 Hz, 3H); ^{19}F NMR (376 MHz, $CDCl_3$) δ -62.49; ESIMS (*m/z*) 263 ($[M\text{-}OH]^+$).

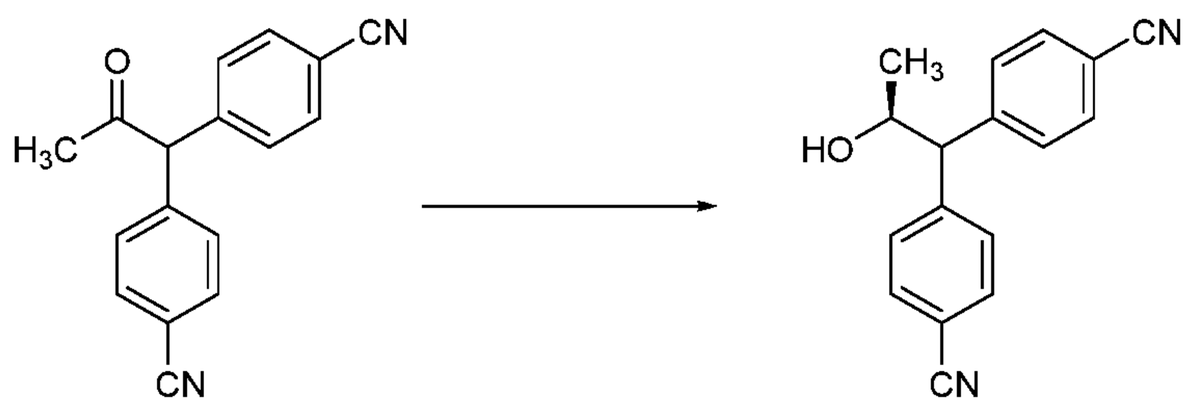
[0079] **Example 3G, Step 1**: Preparation of 4,4'-(2-oxopropane-1,1-diyl)dibenzonitrile.



[0080] To a suspension of 4-bromobenzonitrile (546 mg, 3.00 mmol) and cesium carbonate (977 mg, 3.00 mmol) in THF (10 mL) under an N_2 atmosphere was added acetone (1.10 mL, 15.00 mmol), followed by X-Phos Pd G3 (50.8 mg, 0.060 mmol). Then, the vial was sealed and heated to

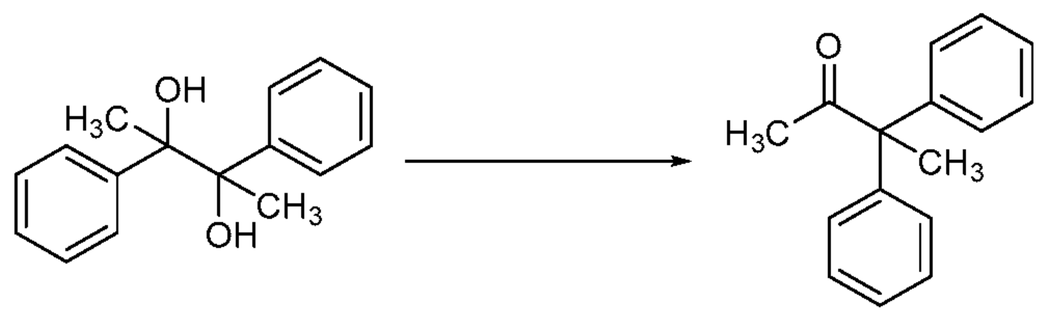
55 °C for 4 days. The reaction was diluted with EtOAc (30 mL) and washed with sat. NH_4Cl (3 x 10 mL), water (15 mL), and brine (15 mL). Then the organic phase was dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→40% EtOAc in hexanes) to afford the title compound (174 mg, 22%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.66 (d, *J* = 8.4 Hz, 4H), 7.34 (d, *J* = 8.3 Hz, 4H), 5.21 (s, 1H), 2.29 (s, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 203.68, 142.15, 132.75, 129.64, 118.21, 112.00, 64.25, 30.43; ESIMS *m/z* 261 ($[M+H]^+$).

[0081] **Example 3G, Step 2**: Preparation of (*S*)-4,4'-(2-hydroxypropane-1,1-diyl)dibenzonitrile.



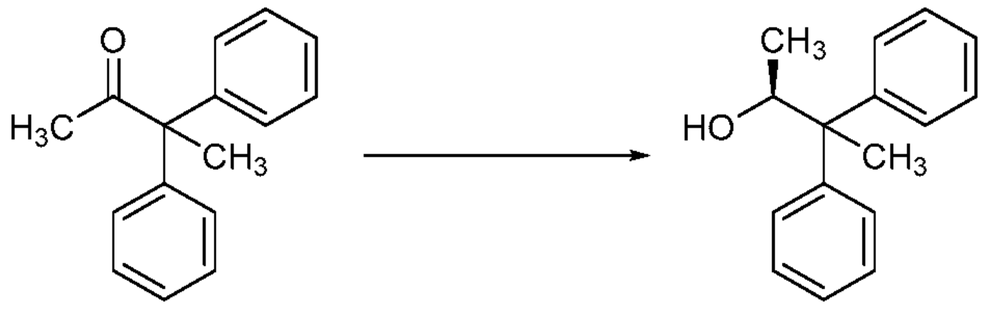
[0082] To a solution of 4,4'-(2-oxopropane-1,1-diyl)dibenzonitrile (174 mg, 0.668 mmol) in toluene (4.5 mL) was added (*R*)-1-methyl-3,3-diphenylhexahydropyrrolo[1,2-c][1,3,2]oxazaborole (1 M solution in toluene, 66.8 µL, 0.067 mmol). Then, the reaction was cooled to 0 °C and a solution of BH_3-DMS (69.8 µl, 0.735 mmol) in 0.5 mL toluene was added over 2 min. The flask was left to stir at 0 °C. After 2 h, the reaction was quenched with methanol (0.5 mL), diluted with EtOAc and added water. Phases were separated and the aqueous phase was extracted with EtOAc x 2. The combined organic phases were washed with brine (20 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→50% EtOAc in hexanes) to afford the title compound (99.7 mg, 57%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ d 7.60 (dd, *J* = 8.4, 6.8 Hz, 4H), 7.51 – 7.46 (m, 2H), 7.43 – 7.37 (m, 2H), 4.63 – 4.47 (m, 1H), 3.97 (d, *J* = 7.5 Hz, 1H), 1.97 (d, *J* = 3.8 Hz, 1H), 1.21 (d, *J* = 6.2 Hz, 3H).^{13}C NMR (101 MHz, $CDCl_3$) δ 146.91, 145.86, 132.60, 132.45, 129.90, 129.19, 118.58, 118.51, 110.96, 110.92, 69.19, 59.56, 22.27; ESIMS *m/z* 263 ($[M+H]^+$).

[0083] **Example 3H, Step 1:** Preparation of 3,3-diphenylbutan-2-one.



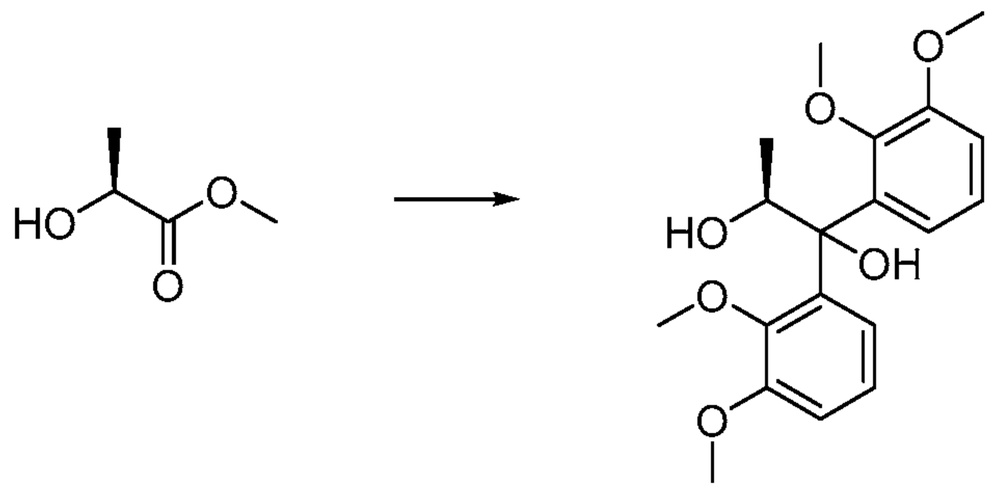
[0084] To a magnetically stirred mixture of 2,3-diphenylbutane-2,3-diol (500 mg, 2.06 mmol) in DCM (10 mL) was added antimony pentachloride (26.5 µL, 0.206 mmol) under air atmosphere. The reaction mixture was stirred at 25 °C for 1 h and then was quenched by slow addition of sat. aq. $NaHCO_3$. The resulting mixture was diluted with water and additional DCM, and the organic layer was separated by passing through a phase separator. The resulting oil was purified by flash column chromatography (SiO_2, 0→5% acetone in hexanes) to afford the title compound (330 mg, 71%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.36 – 7.31 (m, 4H), 7.30 – 7.25 (m, 2H), 7.23 – 7.15 (m, 4H), 2.11 (s, 3H), 1.87 (s, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 209.16, 143.59, 128.36, 126.91, 62.32, 27.62, 26.42; ESIMS *m/z* 225 ($[M+H]^+$).

[0085] **Example 3H, Step 2:** Preparation of (*S*)-3,3-diphenylbutan-2-ol.



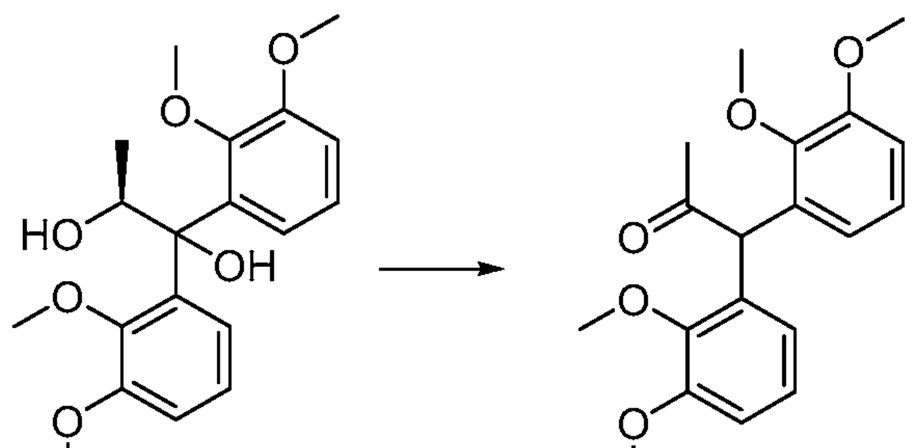
[0086] To a solution of 3,3-diphenylbutan-2-one (150 mg, 0.669 mmol) in toluene (4.5 mL) was added (*R*)-1-methyl-3,3-diphenylhexahydropyrrolo[1,2-c][1,3,2]oxazaborole (1 M solution in toluene, 134 µL, 0.134 mmol). Then, a solution of BH_3-DMS (70.2 µL, 0.702 mmol) in 0.5 mL of toluene was added to the reaction mixture over 2 min. The flask was left to stir at room temperature. After 1 h, the reaction was quenched with methanol (0.5 mL). DCM and water were added, and the phases were separated. The aqueous phase was extracted with DCM (2x). The combined organic phases were washed with brine (20 mL), dried over Na_2SO_4, filtered, and concentrated. The resulting oil was purified by flash column chromatography (SiO_2, 0→20% acetone in hexanes) to afford the title compound (150 mg, 99%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ d 7.39 - 7.17 (m, 10H), 4.70 – 4.61 (m, 1H), 1.67 (s, 3H), 1.51 (d, *J* = 4.9 Hz, 1H), 1.11 (d, *J* = 6.3 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 147.30, 145.86, 128.40, 128.15, 128.05, 127.79, 126.20, 126.01, 72.28, 51.77, 23.26, 18.39; ESIMS *m/z* 227 ($[M+H]^+$).

[0087] **Example 3I, Step 1:** Preparation of (*S*)-1,1-bis(2,3-dimethoxyphenyl)propane-1,2-diol.



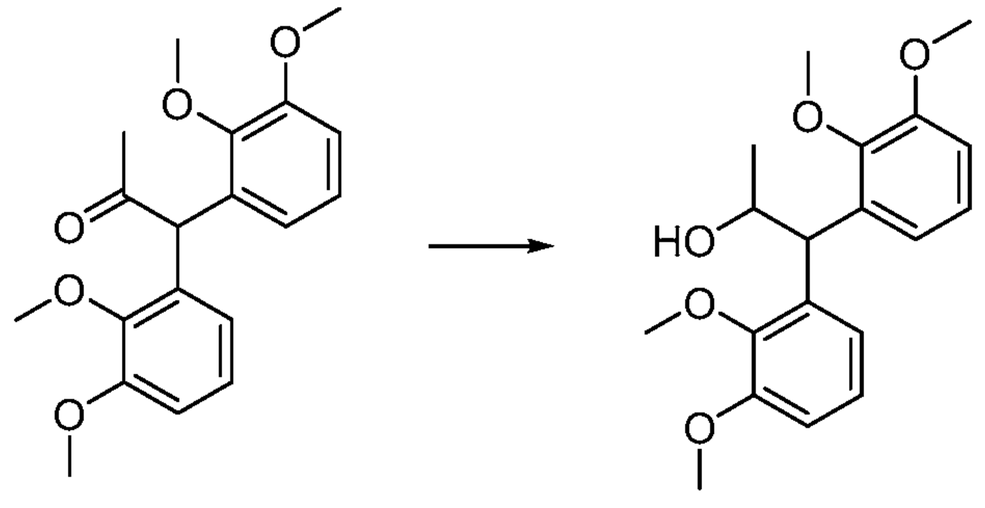
[0088] To a solution of isopropylmagnesium lithium chloride (1.3 M in THF, 6.1 mL, 8.00 mmol) was added THF (2 mL) and 1-bromo-2,3-dimethoxybenzene (1.74 g, 8.00 mmol). The resulting brown solution was heated to a gentle reflux (75 °C external temp) for 2.5 h, then cooled to 0 °C in an ice water bath. (*S*)-methyl 2-hydroxypropanoate (0.191 ml, 2 mmol) was then added dropwise via syringe. The reaction was stirred at 0 °C for 1 h, then removed from the cold bath and stirred overnight at rt. The reaction was cooled to 0 °C in an ice water bath, diluted with water (20 mL), brine (20 mL), and Et_2O (40 mL), and was quenched with 1 N HCl (8 mL). The phases were separated, and the aqueous phase was extracted with Et_2O (20 mL). The organic phases were combined, dried over $MgSO_4$, filtered, and concentrated to provide an oil. Purification by automated silica gel column chromatography (5-50% EtOAc in hexanes) provided the title compound (568 mg, 82%) as a yellow, crystalline solid: ^{1}H NMR (300 MHz, $CDCl_3$) δ 7.43 (td, *J* = 8.0, 1.5 Hz, 2H), 7.11 (td, *J* = 8.1, 4.9 Hz, 2H), 6.83 (dd, *J* = 8.1, 1.4 Hz, 2H), 5.06 – 4.82 (m, 1H), 4.74 (d, *J* = 1.2 Hz, 1H), 3.81 (s, 3H), 3.80 (s, 3H), 3.20 (s, 3H), 3.04 (s, 3H), 2.86 (d, *J* = 9.5 Hz, 1H), 0.97 (d, *J* = 6.4 Hz, 3H); ^{13}C NMR (126 MHz, $CDCl_3$) δ 152.89, 152.82, 146.94, 145.53, 139.56, 138.92, 123.32, 123.26, 122.01, 119.01, 111.30, 79.20, 77.22, 60.07, 59.26, 55.77, 55.64, 18.34; HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{19}H_{24}O_6Na$, 371.1465; found, 371.1456.

[0089] **Example 3I, Step 2:** Preparation of 1,1-bis(2,3-dimethoxyphenyl)propan-2-one.



[0090] To a solution of (*S*)-1,1-bis(2,3-dimethoxyphenyl)propane-1,2-diol (560 mg, 1.61 mmol) in anhydrous CH_2Cl_2 (8 mL) at 0 °C was added triethylsilane (770 µl, 4.82 mmol) and trifluoroacetic acid (TFA, 124 µL, 1.61 mmol). The resulting solution was stirred at 0 °C for 2 h, then removed from the cold bath and stirred for 2 h. TFA (248 µL, 3.2 mmol) was added, and the reaction was then stirred overnight at rt. The reaction was diluted with water (25 mL) and extracted with CH_2Cl_2 (3x 25 mL). The organic extracts were dried over Na_2SO_4, filtered, and concentrated to provide an oil. Purification by automated silica gel column chromatography (5-25% acetone in hexanes) provided the title compound (396 mg, 75%) as a white solid: ^{1}H NMR (300 MHz, $CDCl_3$) δ 6.99 (t, *J* = 8.0 Hz, 2H), 6.87 (dd, *J* = 8.2, 1.5 Hz, 2H), 6.67 – 6.54 (m, 2H), 5.86 (s, 1H), 3.87 (s, 6H), 3.75 (s, 6H), 2.25 (s, 3H); ^{13}C NMR (126 MHz, $CDCl_3$) δ 207.18, 152.69, 147.02, 132.23, 123.74, 121.61, 111.64, 60.36, 55.74, 51.96, 29.80; HRMS-ESI (m/z) ($[M+Na]^+$) calcd for $C_{19}H_{22}O_5Na$, 353.1359; found, 353.1353.

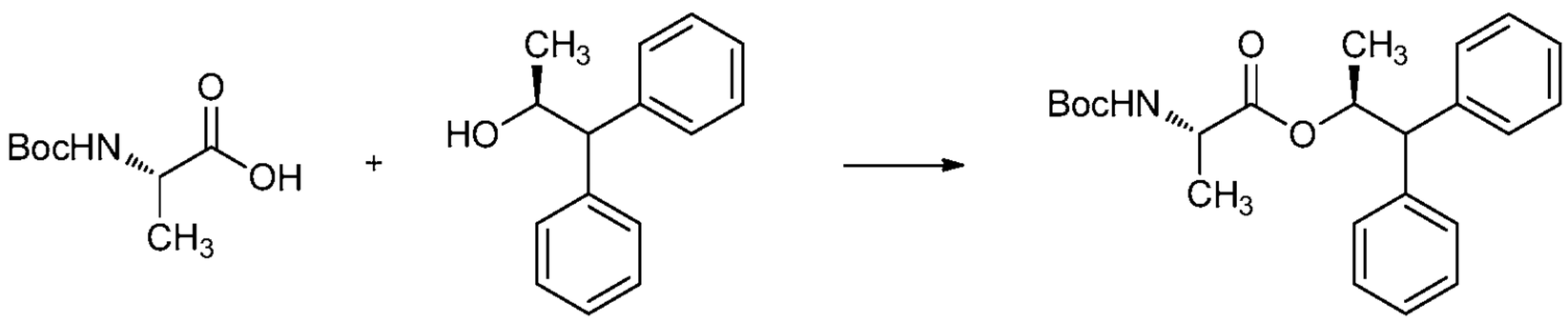
[0091] **Example 3I, Step 3:** Preparation of 1,1-bis(2,3-dimethoxyphenyl)propan-2-ol.



[0092] To a solution of 1,1-bis(2,3-dimethoxyphenyl)propan-2-one (356 mg, 1.08 mmol) in methanol (3.5 mL) was added sodium borohydride (61 mg, 1.6 mmol). The resulting solution was stirred at rt for 20 h, then was quenched with sat'd NH_4Cl (1 mL), diluted with water (20 mL) and extracted with CH_2Cl_2 (3x 20 mL). The organic extracts were combined, dried over Na_2SO_4, filtered, and concentrated to provide the title compound (360 mg, 100%) as an oil: ^{1}H NMR (300

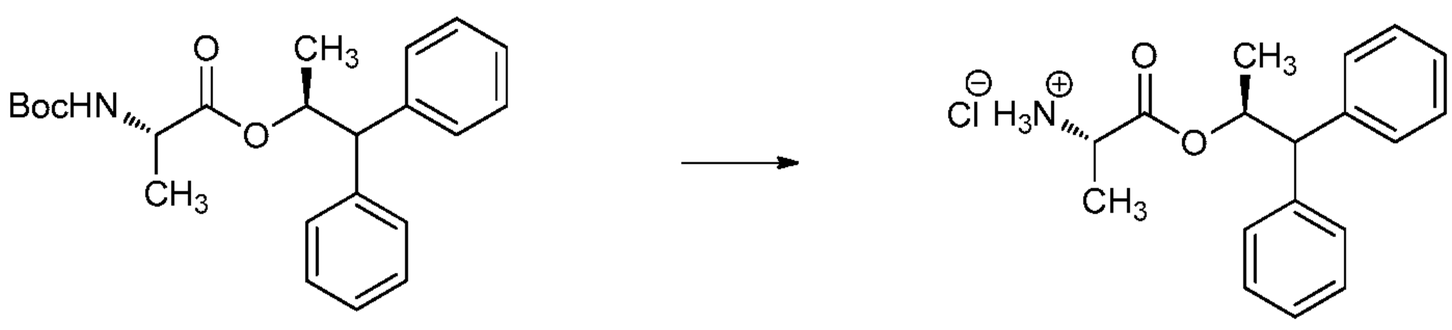
MHz, $CDCl_3$) δ 7.16 – 6.88 (m, 4H), 6.79 (ddd, *J* = 9.6, 7.8, 1.9 Hz, 2H), 4.81 (d, *J* = 8.3 Hz, 1H), 4.53 – 4.32 (m, 1H), 3.84 (s, 3H), 3.84 (s, 3H), 3.77 (s, 3H), 3.76 (s, 3H), 2.04 (d, *J* = 4.2 Hz, 1H), 1.22 (d, *J* = 6.2 Hz, 3H); ^{13}C NMR (126 MHz, $CDCl_3$) δ 152.98, 152.83, 147.71, 147.04, 136.17, 135.33, 123.94, 123.62, 120.96, 120.84, 110.76, 110.48, 70.32, 60.26, 60.20, 55.66, 55.63, 45.11, 21.80; IR (neat film) 3451, 2935, 2833, 1582, 1473, 1428, 1266, 1215, 1167, 1125, 1088, 1068, 1004, 964, 908, 835, 809, 787, 748, 728.

[0093] **Example 4A:** Preparation of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-((*tert*-butoxycarbonyl)amino)-propanoate.



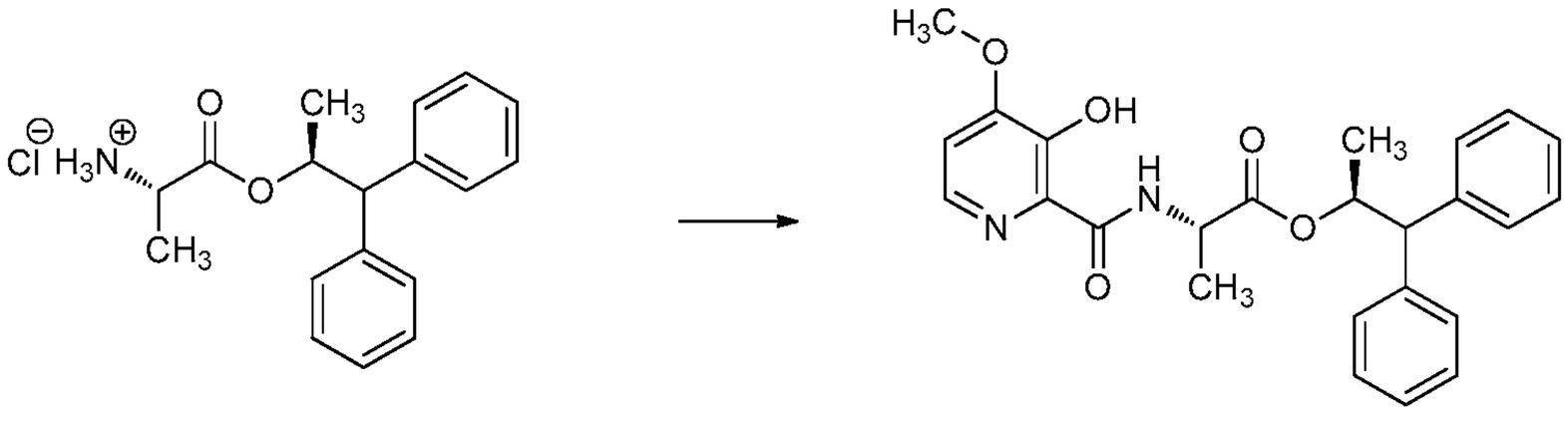
[0094] To a solution of (*S*)-1,1-diphenylpropan-2-ol (317 mg, 1.493 mmol) in DCM (15 mL) at 0 °C were added (*S*)-2-((*tert*-butoxycarbonyl)amino)propanoic acid (Boc-Ala-OH; 311 mg, 1.64 mmol) and *N*,*N*-dimethylpyridin-4-amine (DMAP; 18.2 mg, 0.149 mmol) followed by N^1-((ethylimino)methylene)-N^3,N^3-dimethylpropane-1,3-diamine hydrochloride (EDC; 573 mg, 2.99 mmol), and the reaction mixture was stirred at room temperature overnight and concentrated to give a yellow oil. The crude material was purified by flash column chromatography (SiO_2, 1→10% acetone in hexanes) to afford the title compound (433 mg, 75%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.42 – 7.07 (m, 10H), 5.80 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.97 (d, *J* = 8.0 Hz, 1H), 4.19 – 4.06 (m, 1H), 4.03 (d, *J* = 10.1 Hz, 1H), 1.41 (s, 9H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.76 (d, *J* = 7.2 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.83, 154.96, 141.52, 141.26, 128.79, 128.50, 128.10, 128.08, 126.91, 126.67, 79.62, 73.10, 57.98, 49.21, 28.33, 19.31, 17.98; ESIMS *m/z* 384 ($[M+H]^+$).

[0095] **Example 5, Step 1:** Preparation of (*S*)-1-(((*S*)-1,1-diphenylpropan-2-yl)oxy)-1-oxopropan-2-aminium chloride.



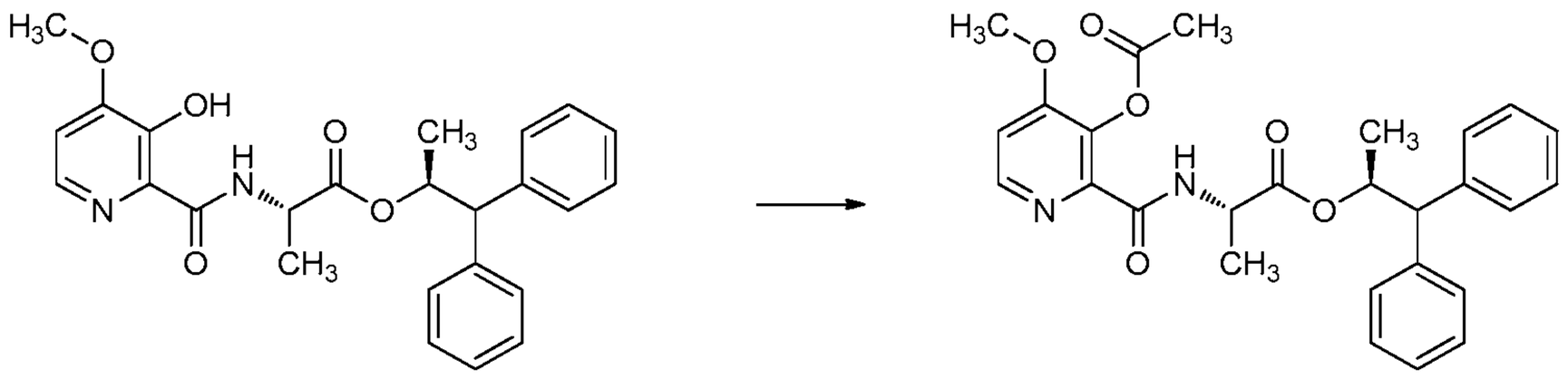
[0096] To a solution of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-((*tert*-butoxycarbonyl)amino)propanoate (Cmpd **2**; 433 mg, 1.13 mmol) in DCM (6 mL) was added a 4 N solution of HCl in dioxane (2.8 mL, 11.3 mmol), and the mixture was stirred for 3 h at room temperature. The solvent was evaporated under a stream of N_2 to provide the title compound (360 mg, 100%) as a white solid: ESIMS (*m/z*) 284 ($[M+H]^+$).

[0097] **Example 5, Step 2:** Preparation of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-(3-hydroxy-4-methoxypicolinamido)propanoate.



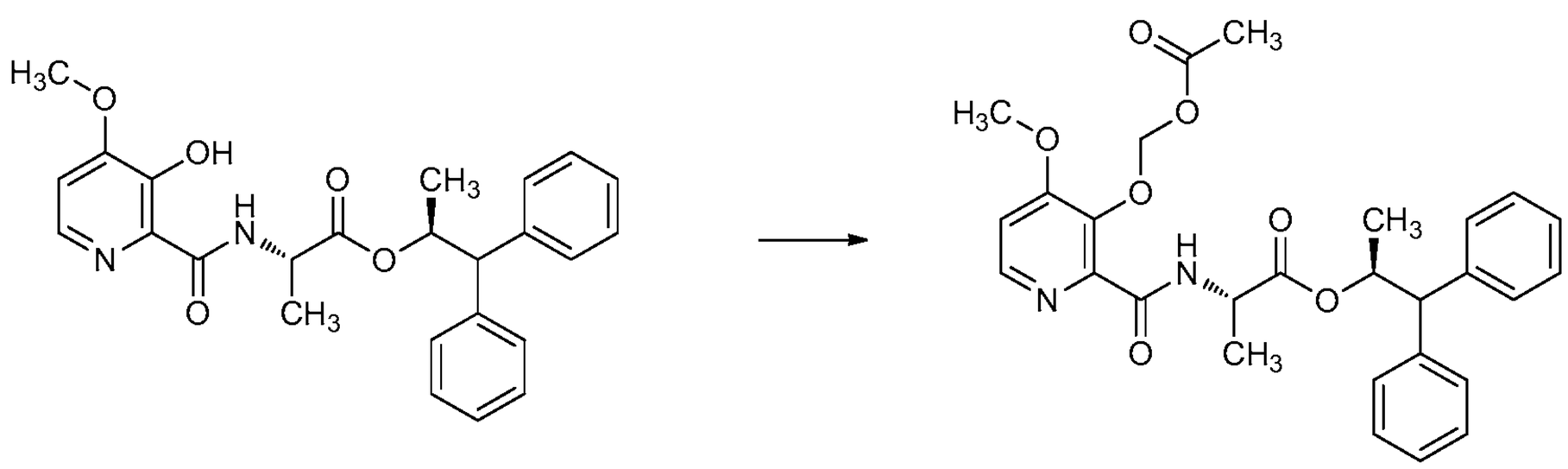
[0098] To a solution of (*S*)-1-(((*S*)-1,1-diphenylpropan-2-yl)oxy)-1-oxopropan-2-aminium chloride (Cmpd **46**; 361 mg, 1.13 mmol) and 3-hydroxy-4-methoxypicolinic acid (210 mg, 1.24 mmol) in DCM (11 mL) were added benzotriazol-1-yl-oxytripyrrolidinophosphonium hexafluorophosphate (PyBOP; 646 mg, 1.24 mmol) and *N*-ethyl-*N*-isopropylpropan-2-amine (DIPEA; 0.651 mL, 3.72 mmol), and the reaction mixture was stirred for 2 h at room temperature. The solvent was evaporated and the crude oil was purified by flash column chromatography (SiO_2, 1→50% acetone in hexanes) to afford the title compound (340 mg, 70%) as a white foam: ^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.38 – 7.06 (m, 10H), 6.86 (d, *J* = 5.3, 1H), 5.83 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.52 (dq, *J* = 8.1, 7.2 Hz, 1H), 4.06 (d, *J* = 10.2 Hz, 1H), 3.93 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.67, 168.53, 155.34, 148.72, 141.38, 141.13, 140.40, 130.48, 128.80, 128.50, 128.10, 128.03, 126.95, 126.70, 109.39, 73.57, 57.93, 56.07, 47.85, 19.24, 17.61; HRMS–ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{27}N_2O_5$, 435.1920; found, 435.1925.

[0099] **Example 6A:** Preparation of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-(3-acetoxy-4-methoxypicolinamido)propanoate.



[00100] To a solution of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-(3-hydroxy-4-methoxypicolinamido)-propanoate (Cmpd **90**; 70.0 mg, 0.161 mmol), Et_3N (44.9 μL, 0.332 mmol), and DMAP (3.94 mg, 0.032 mmol) in DCM (3.2 mL) was added acetyl chloride (17.2 μL, 0.242 mmol) at room temperature, and the reaction mixture was stirred for 2 h. The solvent was evaporated, and the resulting crude oil was purified by flash column chromatography (SiO_2, 1→40% acetone in hexanes) to afford the title compound (75.0 mg, 97%) as a colorless oil: ^1H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 7.8 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.38 – 7.10 (m, 10H), 6.97 (d, *J* = 5.4 Hz, 1H), 5.82 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.52 (dt, *J* = 8.2, 7.1 Hz, 1H), 4.05 (d, *J* = 10.1 Hz, 1H), 3.87 (s, 3H), 2.37 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.89 (d, *J* = 7.1 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.23, 168.89, 162.28, 159.42, 146.66, 141.55, 141.44, 141.25, 137.45, 128.77, 128.50, 128.13, 128.11, 126.89, 126.67, 109.73, 73.32, 57.90, 56.27, 47.85, 20.75, 19.25, 17.92; HRMS–ESI (*m*/*z*) ($[M+H]^+$) calcd for $C_{27}H_{29}N_2O_6$, 477.2025; found, 477.2019.

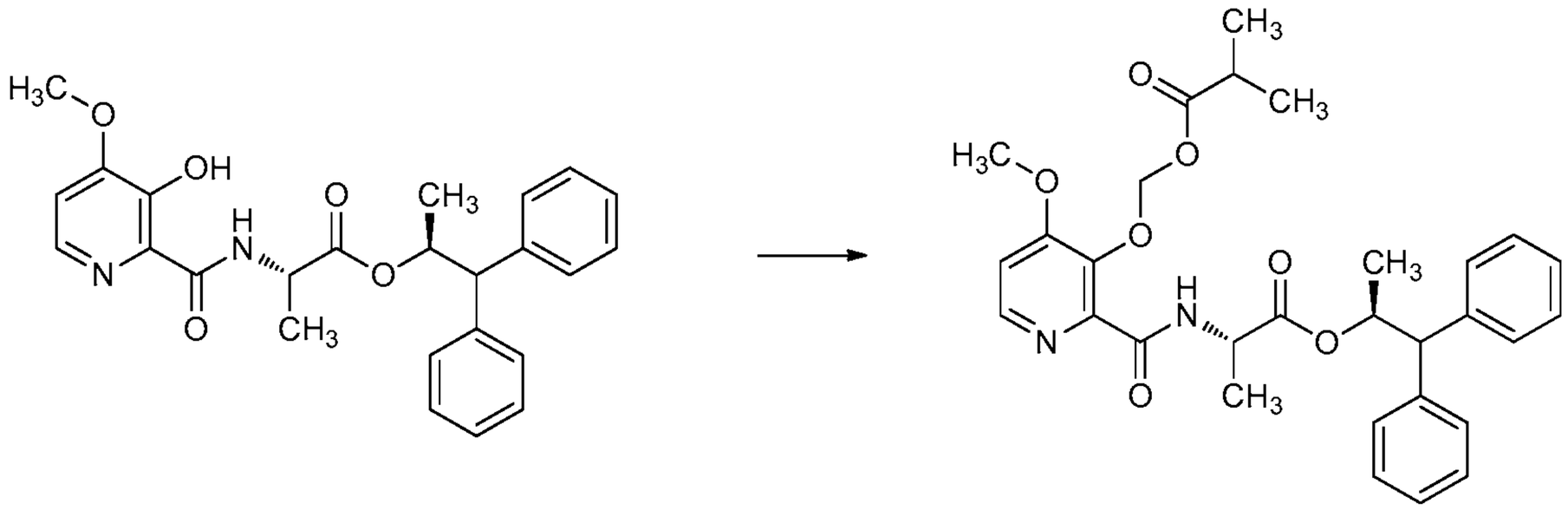
[00101] **Example 6B:** Preparation of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-(3-(acetoxymethoxy)-4-methoxypicolinamido)propanoate.



[00102] To a suspension of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-(3-hydroxy-4-methoxypicolinamido)-propanoate (Cmpd **90**; 100 mg, 0.230 mmol) and K_2CO_3 (63.6 mg, 0.460 mmol) in acetone (4.6 mL) was added bromomethyl acetate (33.9 μL, 0.345 mmol) at room

temperature, and the mixture was heated to 55 °C for 3 h and then cooled to room temperature. The solvent was evaporated and the resulting crude material was purified by flash column chromatography (SiO_2, 1→40% acetone in hexanes) to afford the title compound (94.0 mg, 80% yield) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.25 (d, J = 5.4 Hz, 1H), 8.22 (d, J = 7.9 Hz, 1H), 7.34 – 7.09 (m, 10H), 6.92 (d, J = 5.4 Hz, 1H), 5.83 (dq, J = 10.1, 6.2 Hz, 1H), 5.72 (d, J = 0.7 Hz, 2H), 4.60 – 4.49 (m, 1H), 4.06 (d, J = 10.1 Hz, 1H), 3.88 (s, 3H), 2.05 (s, 3H), 1.25 (d, J = 6.1 Hz, 3H), 0.91 (d, J = 7.2 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.33, 170.25, 162.88, 160.24, 145.70, 143.91, 142.54, 141.48, 141.25, 128.76, 128.49, 128.12, 128.09, 126.89, 126.65, 109.56, 89.50, 73.27, 57.92, 56.17, 48.07, 20.86, 19.25, 17.73; HRMS–ESI (m/z) $[M+H]^+$ calcd for $C_{28}H_{31}N_2O_7$, 507.2131; found, 507.2125.

[00103] Example 6C: Preparation of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-(3-((isobutyryloxy)methoxy)-4-methoxypicolinamido)propanoate.



[00104] To a solution of (*S*)-(*S*)-1,1-diphenylpropan-2-yl 2-(3-hydroxy-4-methoxypicolinamido)-propanoate (Cmpd **90**; 100 mg, 0.230 mmol) in acetone (4.6 mL) were added sodium carbonate (Na_2CO_3; 73.2 mg, 0.690 mmol), sodium iodide (NaI; 6.90 mg, 0.046 mmol) and chloromethyl 2-ethoxyacetate (62.9 mg, 0.460 mmol). The mixture was heated to 55 °C overnight and then cooled to room temperature, and the solvent was evaporated. The resulting residue was purified by flash column chromatography (SiO_2, 2→30% acetone in hexanes) to afford the title compound (79.0 mg, 64%) as a colorless oil: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.28 (d, J = 7.9 Hz, 1H), 8.25 (d, J = 5.3 Hz, 1H), 7.36 – 7.08 (m, 10H), 6.92 (d, J = 5.4 Hz, 1H), 5.83 (dq, J = 10.1, 6.2 Hz, 1H), 5.79 – 5.69 (m, 2H), 4.62 – 4.44 (m, 1H), 4.06 (d, J = 10.1 Hz, 1H), 3.86 (s, 3H), 2.53 (hept, J = 7.0 Hz, 1H), 1.25 (d, J = 6.2 Hz, 3H), 1.13 (d, J = 7.0 Hz, 6H), 0.91 (d, J = 7.2 Hz, 3H);

^{13}C NMR (101 MHz, $CDCl_3$) δ 176.22, 172.34, 162.85, 160.23, 145.55, 144.16, 142.18, 141.48, 141.26, 128.76, 128.49, 128.12, 128.09, 126.89, 126.65, 109.48, 89.90, 73.26, 57.93, 56.12, 48.07, 33.85, 19.26, 18.68, 17.74; HRMS–ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{35}N_2O_7$, 535.2444; found, 535.2431.

[00105] Example A: Evaluation of Fungicidal Activity: Leaf Blotch of Wheat (*Zymoseptoria tritici;* Bayer code SEPTTR):

[00106] Technical grades of materials were dissolved in acetone, which were then mixed with nine volumes of water (H_2O) containing 110 ppm Triton X-100. The fungicide solutions were applied onto wheat seedlings using an automated booth sprayer to run-off. All sprayed plants were allowed to air dry prior to further handling. All fungicides were evaluated using the aforementioned method for their activity *vs.* all target diseases, unless stated otherwise. Wheat leaf blotch and brown rust activity were also evaluated using track spray applications, in which case the fungicides were formulated as EC formulations, containing 0.1% Trycol 5941 in the spray solutions.

[00107] Wheat plants (variety Yuma) were grown from seed in a greenhouse in 50% mineral soil/50% soil-less Metro mix until the first leaf was fully emerged, with 7-10 seedlings per pot. These plants were inoculated with an aqueous spore suspension of *Zymoseptoria tritici* either prior to or after fungicide treatments. After inoculation the plants were kept in 100% relative humidity (one day in a dark dew chamber followed by two to three days in a lighted dew chamber at 20 °C) to permit spores to germinate and infect the leaf. The plants were then transferred to a greenhouse set at 20 °C for disease to develop. When disease symptoms were fully expressed on the 1st leaves of untreated plants, infection levels were assessed on a scale of 0 to 100 percent disease severity. Percent disease control was calculated using the ratio of disease severity on treated plants relative to untreated plants.

[00108] Example B: Evaluation of Fungicidal Activity: Wheat Brown Rust (*Puccinia triticina*; Synonym: *Puccinia recondita* f. sp. *tritici;* Bayer code PUCCRT):

[00109] Wheat plants (variety Yuma) were grown from seed in a greenhouse in 50% mineral soil/50% soil-less Metro mix until the first leaf was fully emerged, with 7-10 seedlings per pot. These plants were inoculated with an aqueous spore suspension of *Puccinia triticina* either prior to or after fungicide treatments. After inoculation the plants were kept in a dark dew room at 22 °C

with 100% relative humidity overnight to permit spores to germinate and infect the leaf. The plants were then transferred to a greenhouse set at 24 °C for disease to develop. Fungicide formulation, application and disease assessment followed the procedures as described in the Example A.

[00110] Example C: Evaluation of Fungicidal Activity: Wheat Glume Blotch (*Leptosphaeria nodorum*; Bayer code LEPTNO):

[00111] Wheat plants (variety Yuma) were grown from seed in a greenhouse in 50% mineral soil/50% soil-less Metro mix until the first leaf was fully emerged, with 7-10 seedlings per pot. These plants were inoculated with an aqueous spore suspension of *Leptosphaeria nodorum* 24 h after fungicide treatments. After inoculation the plants were kept in 100% relative humidity (one day in a dark dew chamber followed by two days in a lighted dew chamber at 20 °C) to permit spores to germinate and infect the leaf. The plants were then transferred to a greenhouse set at 20 °C for disease to develop. Fungicide formulation, application and disease assessment followed the procedures as described in the Example A.

[00112] Example D: Evaluation of Fungicidal Activity: Apple Scab (*Venturia inaequalis;* Bayer code VENTIN):

[00113] Apple seedlings (variety McIntosh) were grown in soil-less Metro mix, with one plant per pot. Seedlings with two expanding young leaves at the top (older leaves at bottom of the plants were trimmed) were used in the test. Plants were inoculated with a spore suspension of *Venturia inaequalis* 24 h after fungicide treatment and kept in a 22 °C dew chamber with 100% relative humidity for 48 h, and then moved to a greenhouse set at 20 °C for disease to develop. Fungicide formulation, application and disease assessment on the sprayed leaves followed the procedures as described in the Example A.

[00114] Example E: Evaluation of Fungicidal Activity: Leaf Spot of Sugar Beets (*Cercospora beticola;* Bayer code CERCBE):

[00115] Sugar beet plants (variety HH88) were grown in soil-less Metro mix and trimmed regularly to maintain a uniform plant size prior to test. Plants were inoculated with a spore suspension 24 h after fungicide treatments. Inoculated plants were kept in a dew chamber at 22 °C

for 48 h then incubated in a greenhouse set at 24 °C under a clear plastic hood with bottom ventilation until disease symptoms were fully expressed. Fungicide formulation, application and disease assessment on the sprayed leaves followed the procedures as described in the Example A.

[00116] Example F: Evaluation of Fungicidal Activity: Asian Soybean Rust (*Phakopsora pachyrhizi*; Bayer code PHAKPA):

[00117] Technical grades of materials were dissolved in acetone, which were then mixed with nine volumes of H_2O containing 0.011% Tween 20. The fungicide solutions were applied onto soybean seedlings using an automated booth sprayer to run-off. All sprayed plants were allowed to air dry prior to further handling.

[00118] Soybean plants (variety Williams 82) were grown in soil-less Metro mix, with one plant per pot. Two weeks old seedlings were used for testing. Plants were inoculated either 3 days prior to or 1 day after fungicide treatments. Plants were incubated for 24 h in a dark dew room at 22 °C and 100% relative humidity then transferred to a growth room at 23 °C for disease to develop. Disease severity was assessed on the sprayed leaves.

[00119] Example G: Evaluation of Fungicidal Activity: Barley Scald (*Rhyncosporium secalis*; Bayer code RHYNSE):

[00120] Barley seedlings (variety Harrington) were propagated in soil-less Metro mix, with each pot having 8 to 12 plants, and used in the test when the first leaf was fully emerged. Test plants were inoculated by an aqueous spore suspension of *Rhyncosporium secalis* 24 h after fungicide treatments. After inoculation the plants were kept in a dew room at 22°C with 100% relative humidity for 48 h. The plants were then transferred to a greenhouse set at 20 °C for disease to develop. Fungicide formulation, application and disease assessment on the sprayed leaves followed the procedures as described in the Example A.

[00121] Example H: Evaluation of Fungicidal Activity: Rice Blast (*Pyricularia oryzae*; Bayer code PYRIOR):

[00122] Rice seedlings (variety Japonica) were propagated in soil-less Metro mix, with each pot having 8 to 14 plants, and used in the test when 12 to 14 days old. Test plants were inoculated with an aqueous spore suspension of *Pyricularia oryzae* 24 h after fungicide treatments. After

inoculation the plants were kept in a dew room at 22 °C with 100% relative humidity for 48 h to permit spores to germinate and infect the leaf. The plants were then transferred to a greenhouse set at 24 °C for disease to develop. Fungicide formulation, application and disease assessment on the sprayed leaves followed the procedures as described in the Example A.

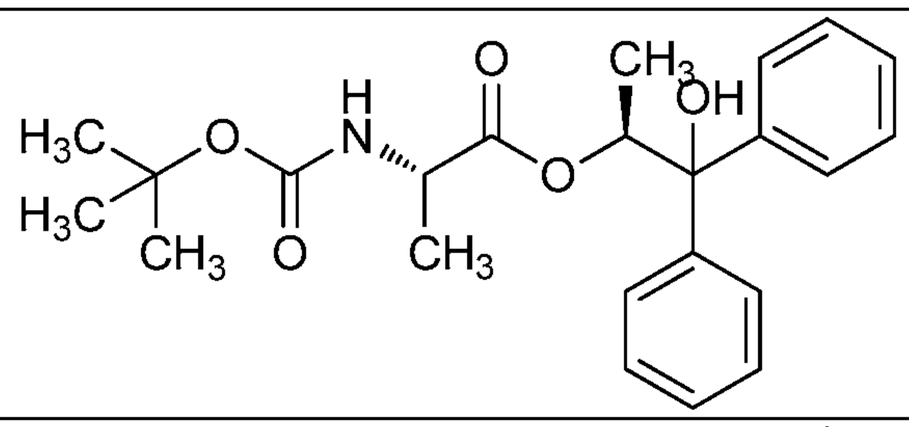
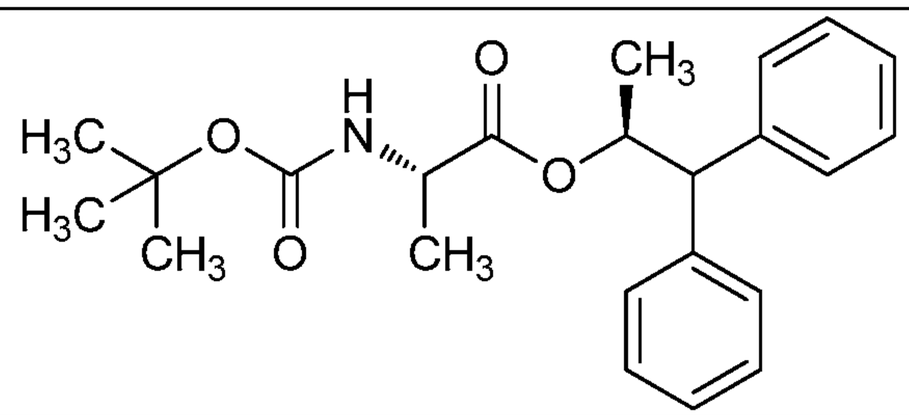
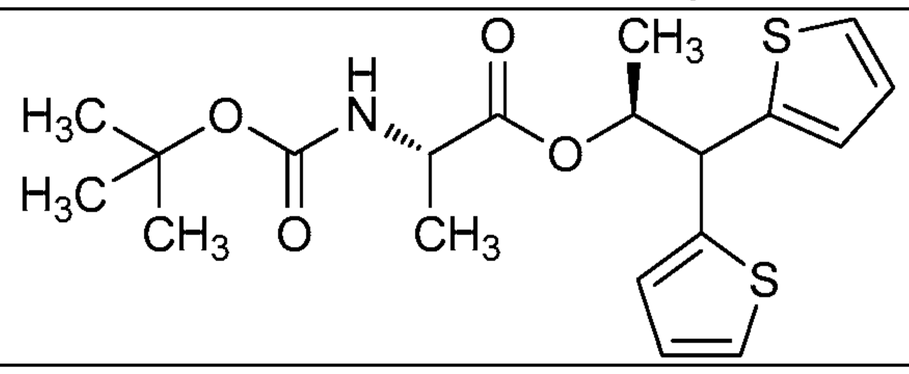
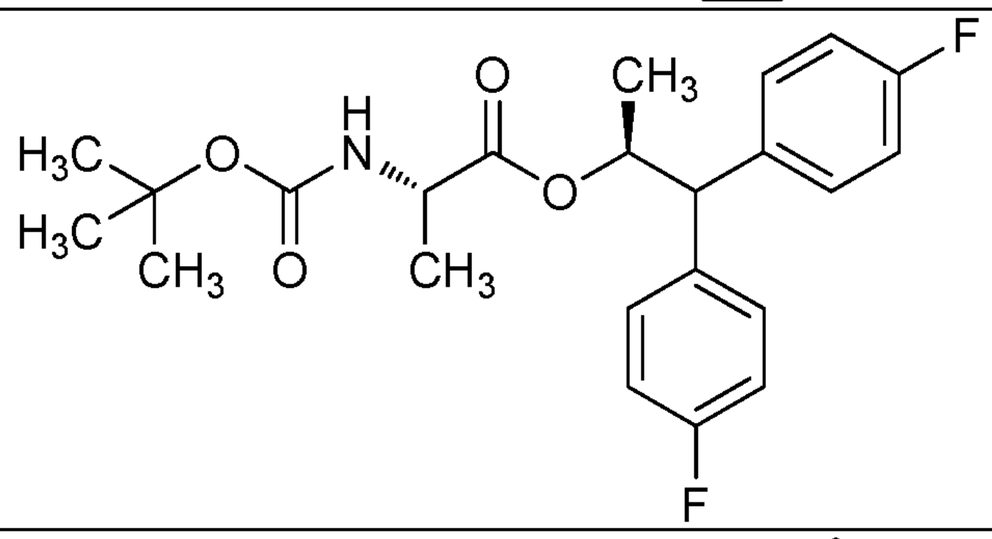
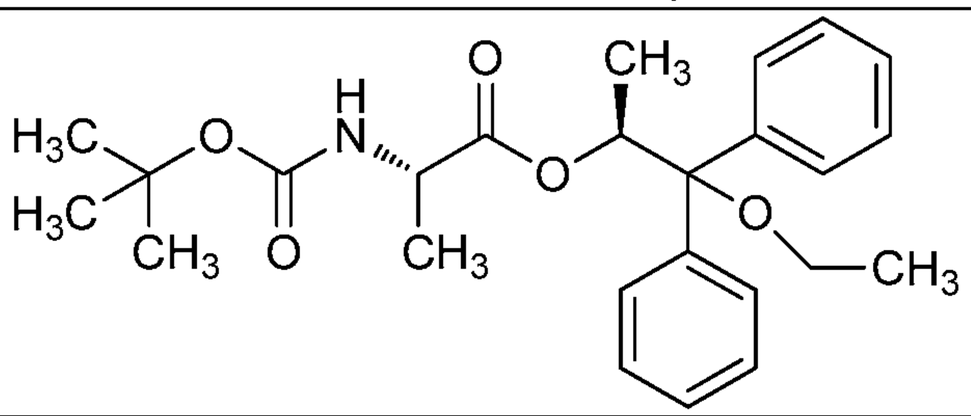
[00123] Example I: Evaluation of Fungicidal Activity: Tomato Early Blight (*Alternaria solani*; Bayer code ALTESO):

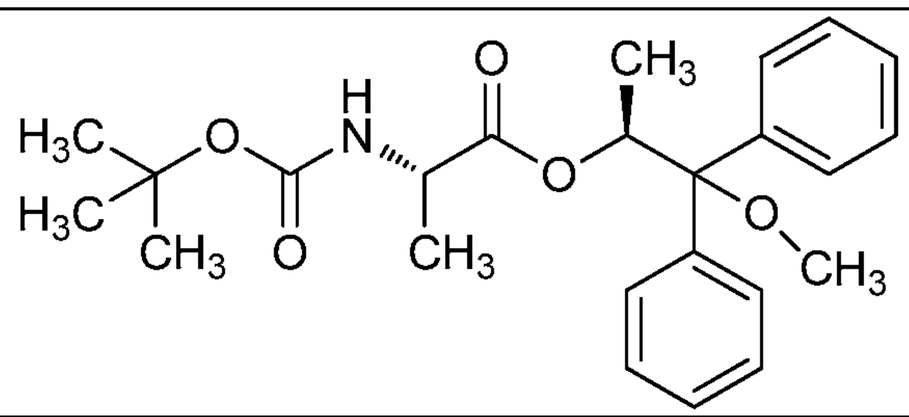
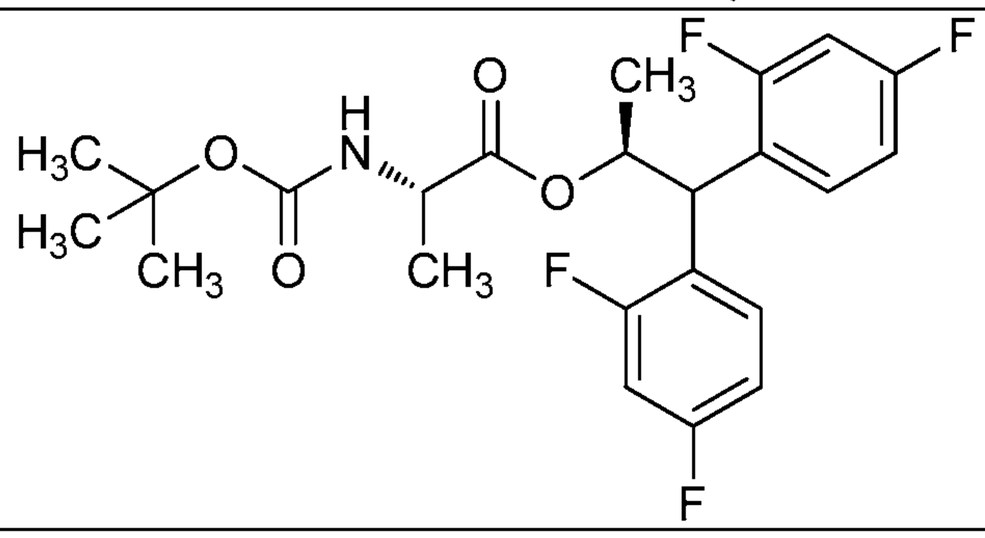
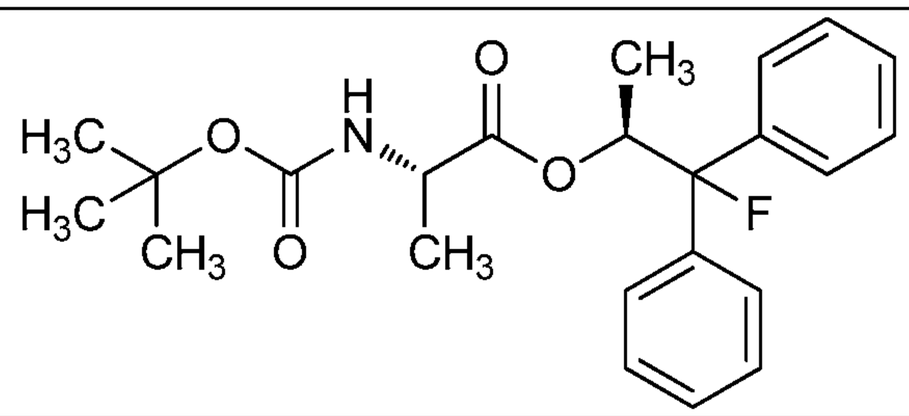
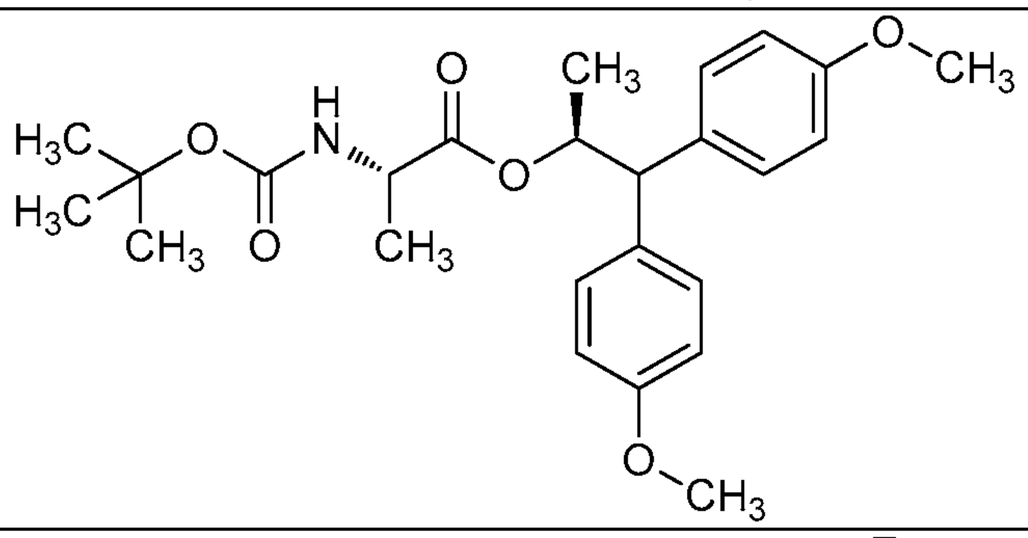
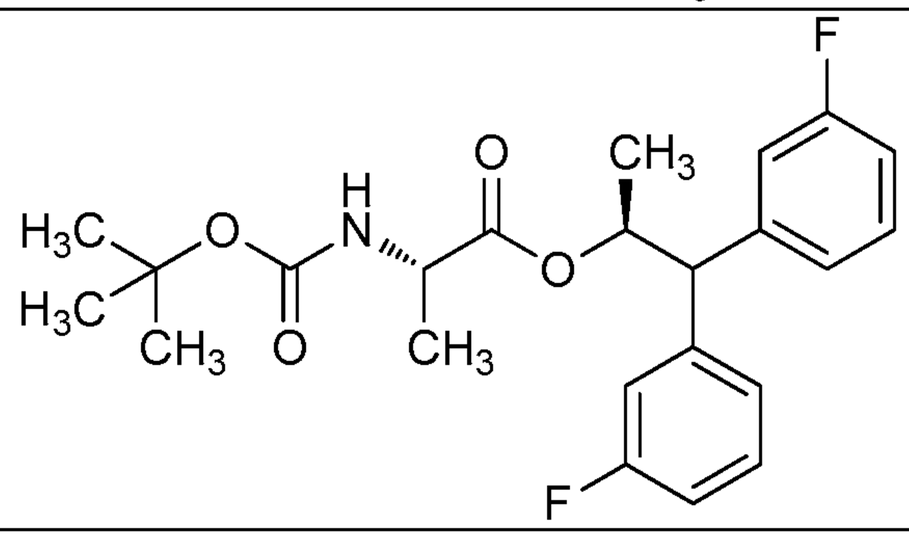
[00124] Tomato plants (variety Outdoor Girl) were propagated in soil-less Metro mix, with each pot having one plant, and used when 12 to 14 days old. Test plants were inoculated with an aqueous spore suspension of *Alternaria solani* 24 h after fungicide treatments. After inoculation the plants were kept in a dew room at 22 °C with 100% relative humidity for 48 h to permit spores to germinate and infect the leaf. The plants were then transferred to a growth room at 22 °C for disease to develop. Fungicide formulation, application and disease assessment on the sprayed leaves followed the procedures as described in the Example A.

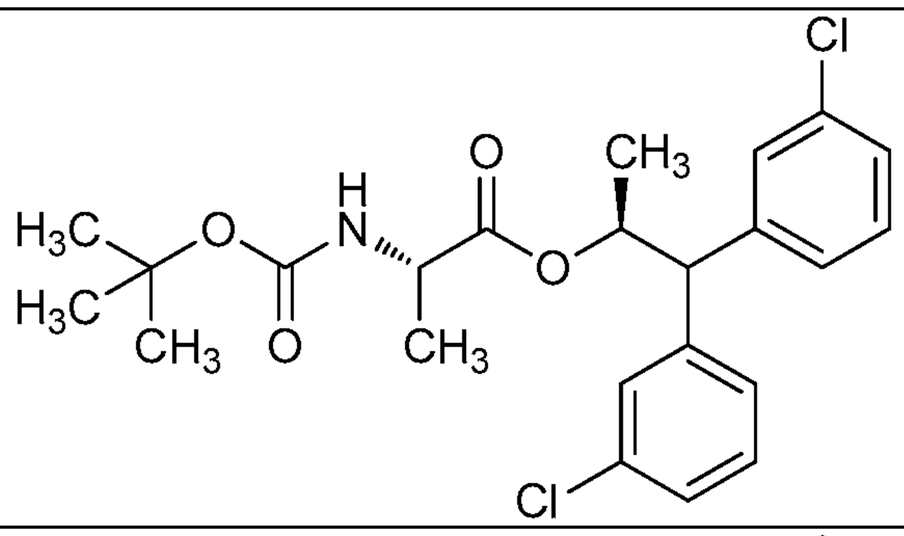
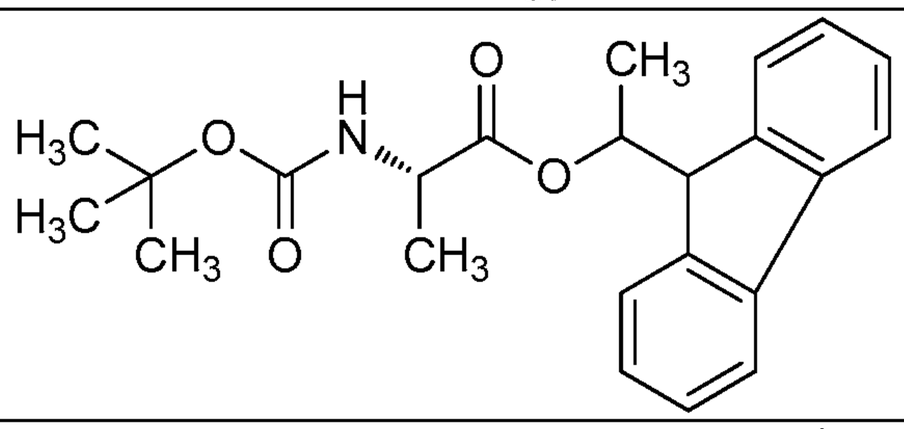
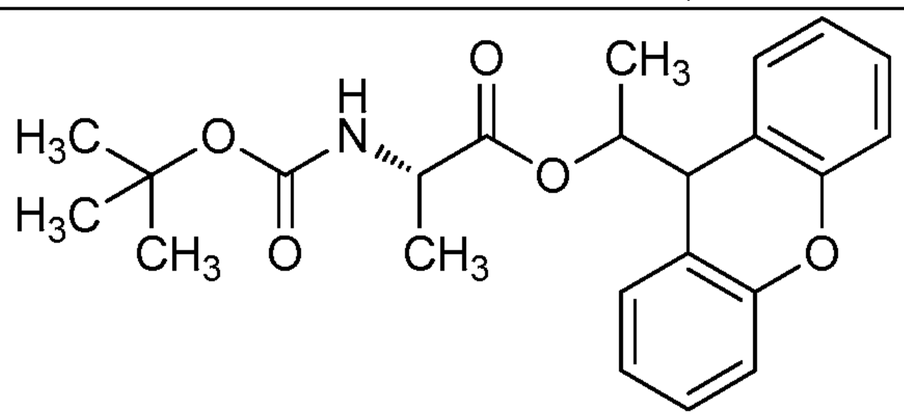
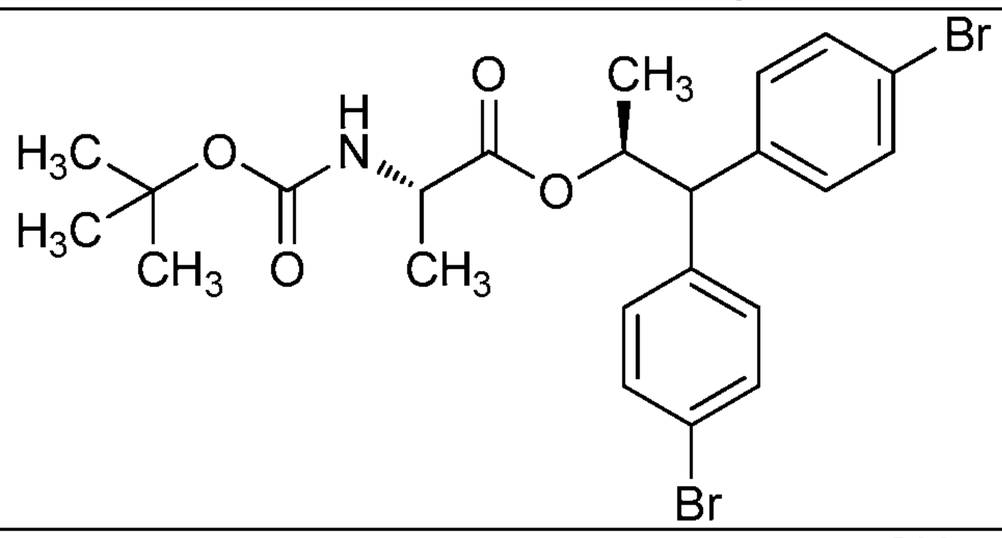
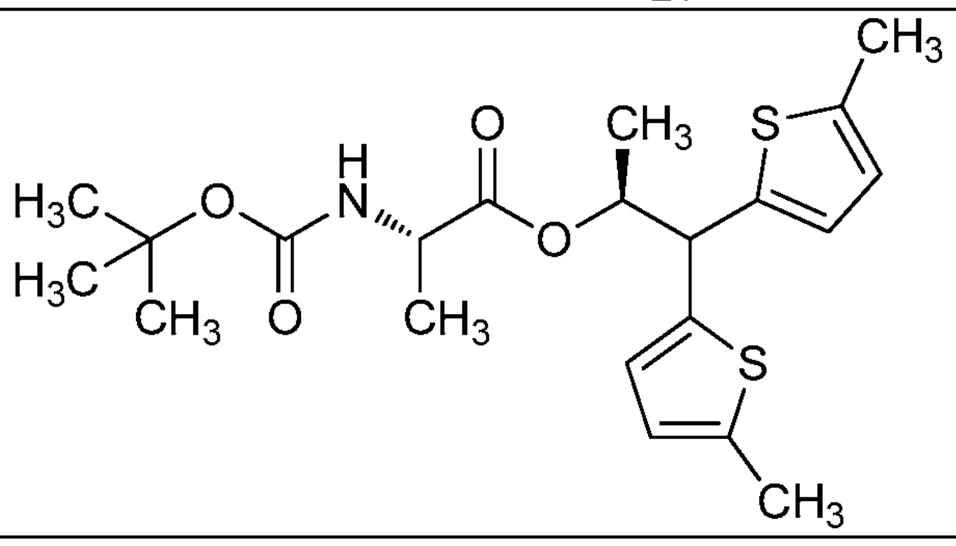
[00125] Example J: Evaluation of Fungicidal Activity: Cucumber Anthracnose (*Colletotrichum lagenarium*; Bayer code COLLLA):

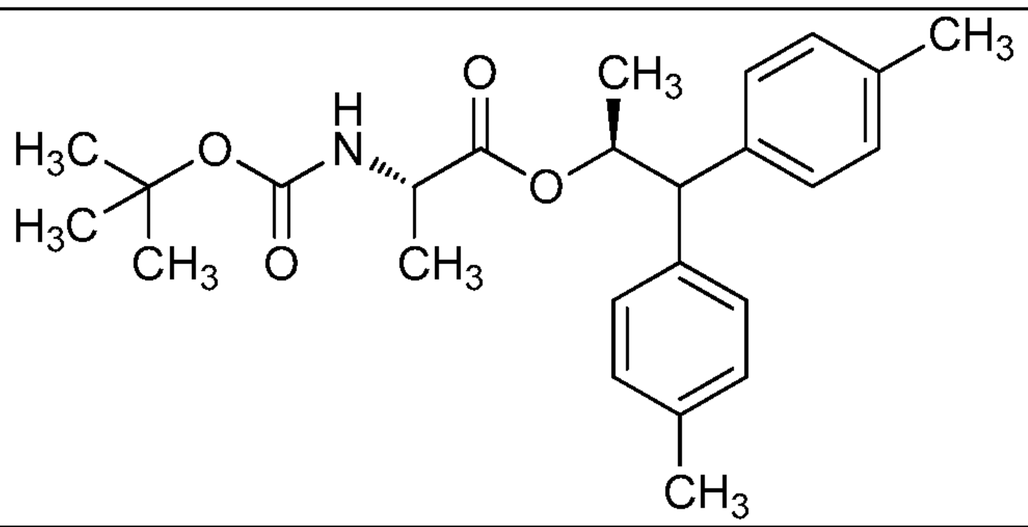
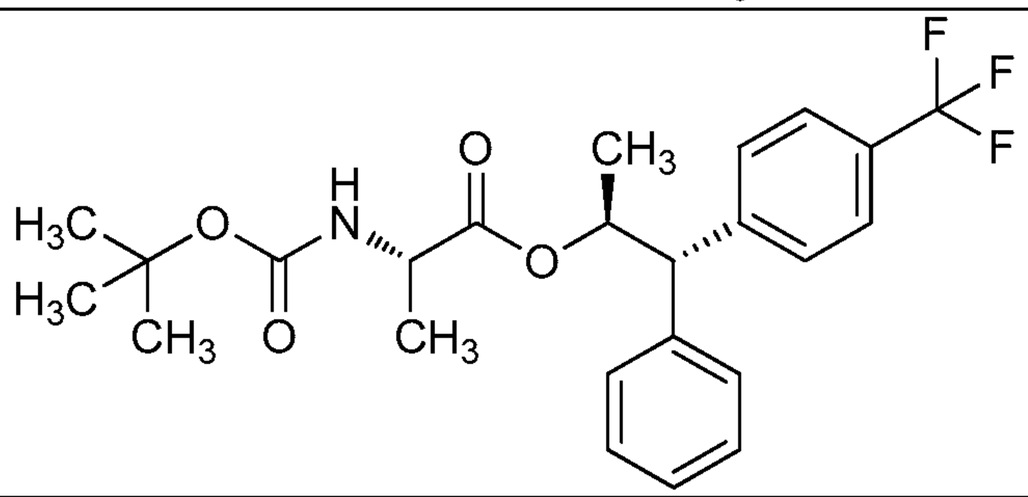
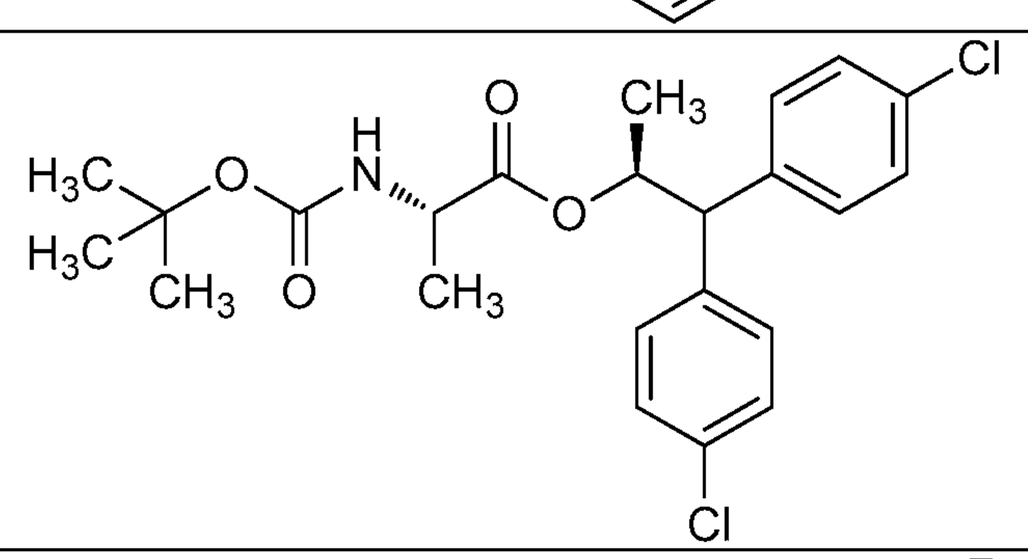
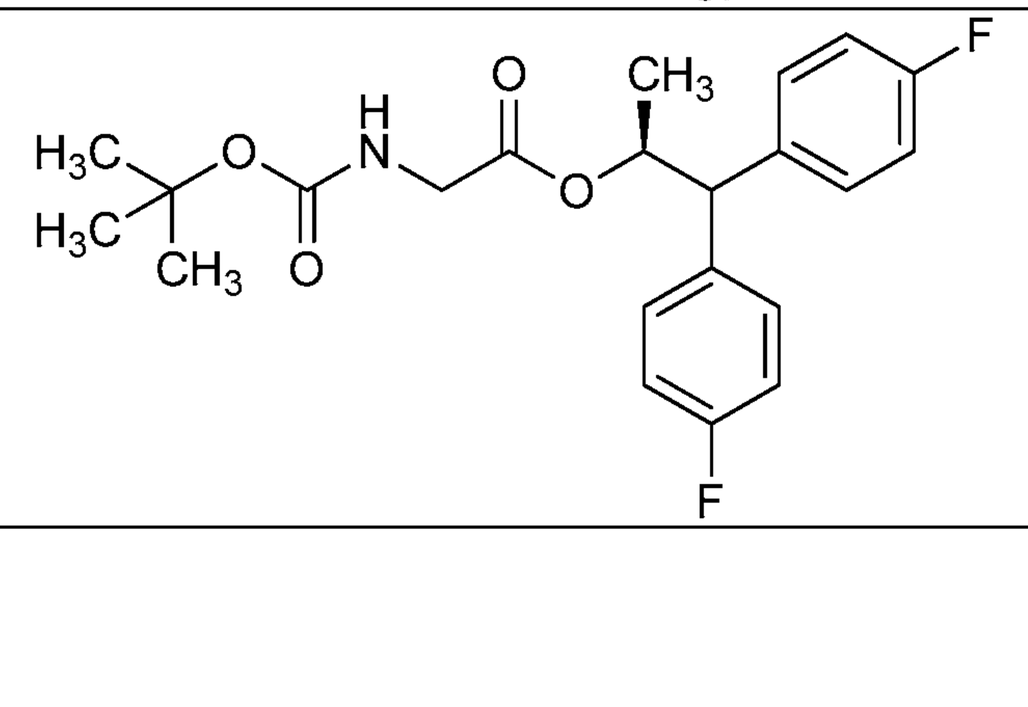
[00126] Cucumber seedlings (variety Bush Pickle) were propagated in soil-less Metro mix, with each pot having one plant, and used in the test when 12 to 14 days old. Test plants were inoculated with an aqueous spore suspension of *Colletotrichum lagenarium* 24 hr after fungicide treatments. After inoculation the plants were kept in a dew room at 22 °C with 100% relative humidity for 48 hr to permit spores to germinate and infect the leaf. The plants were then transferred to a growth room set at 22 °C for disease to develop. Fungicide formulation, application and disease assessment on the sprayed leaves followed the procedures as described in the Example A.

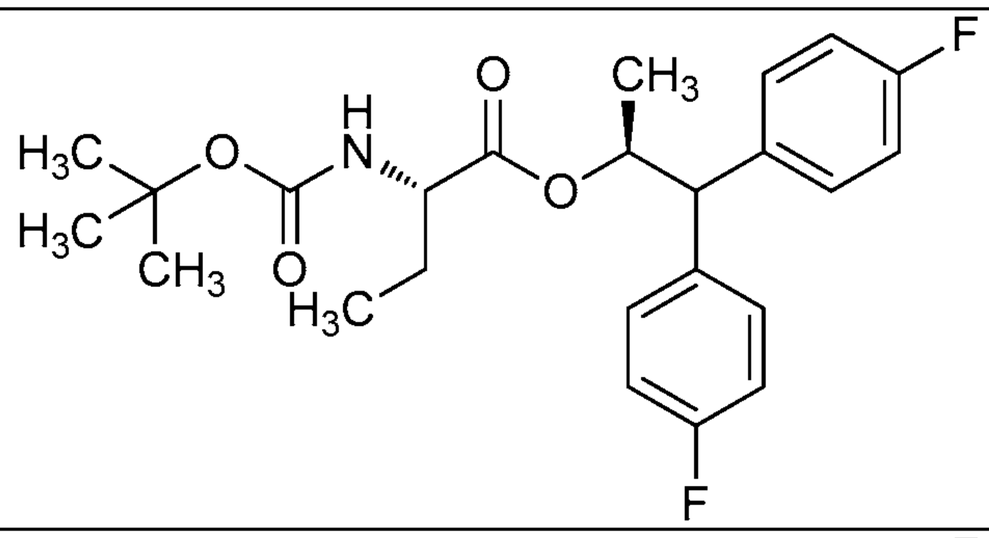
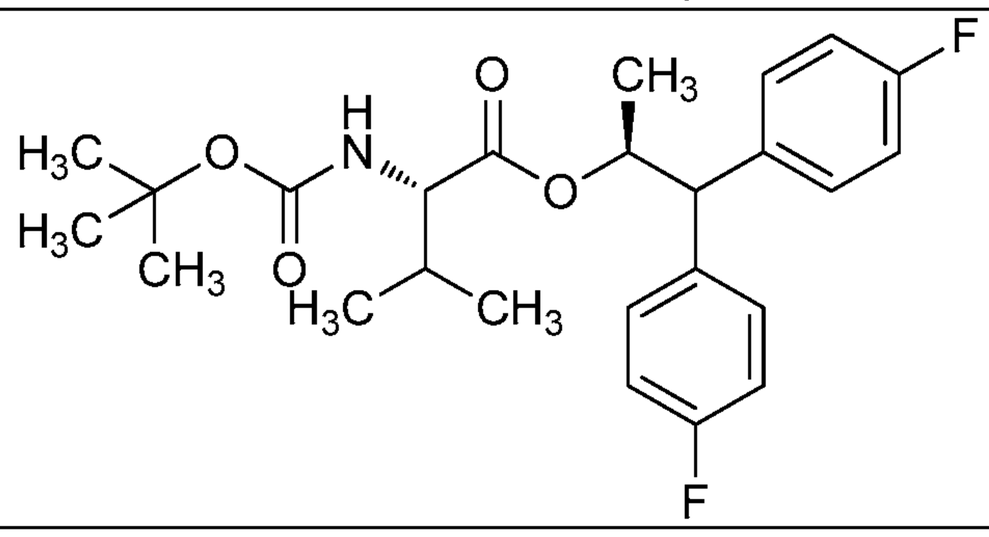
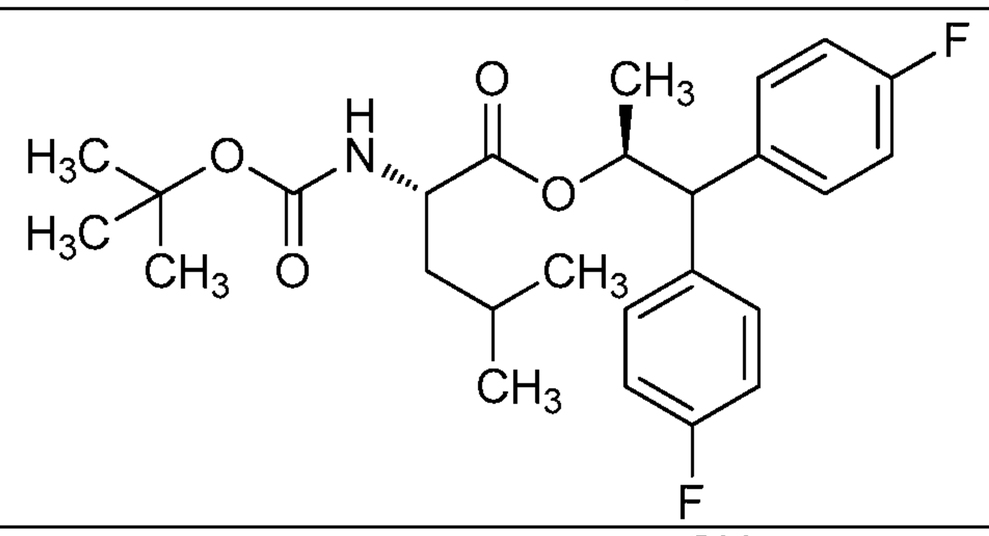
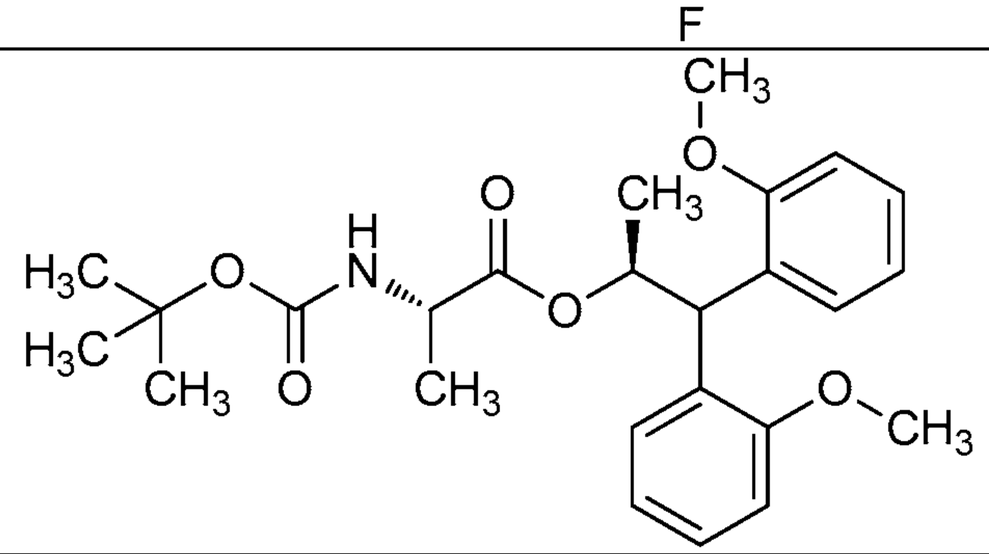
Table 1. Compound Structure, Preparation Method, and Appearance

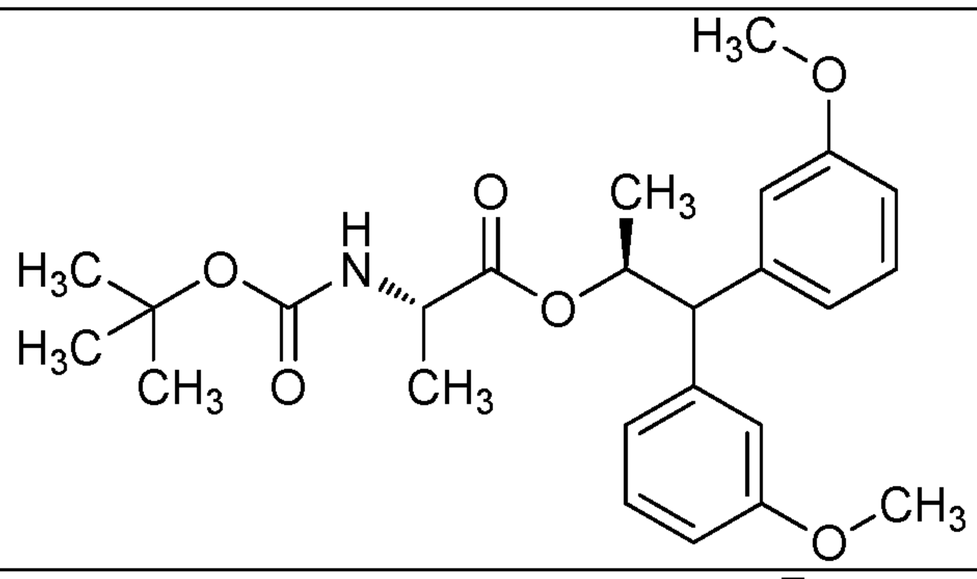
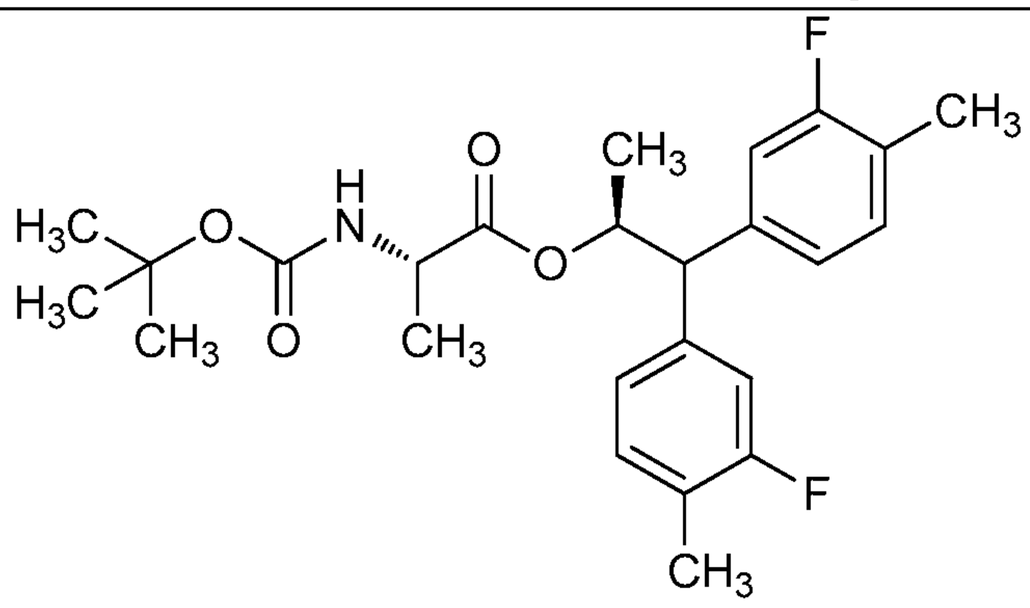
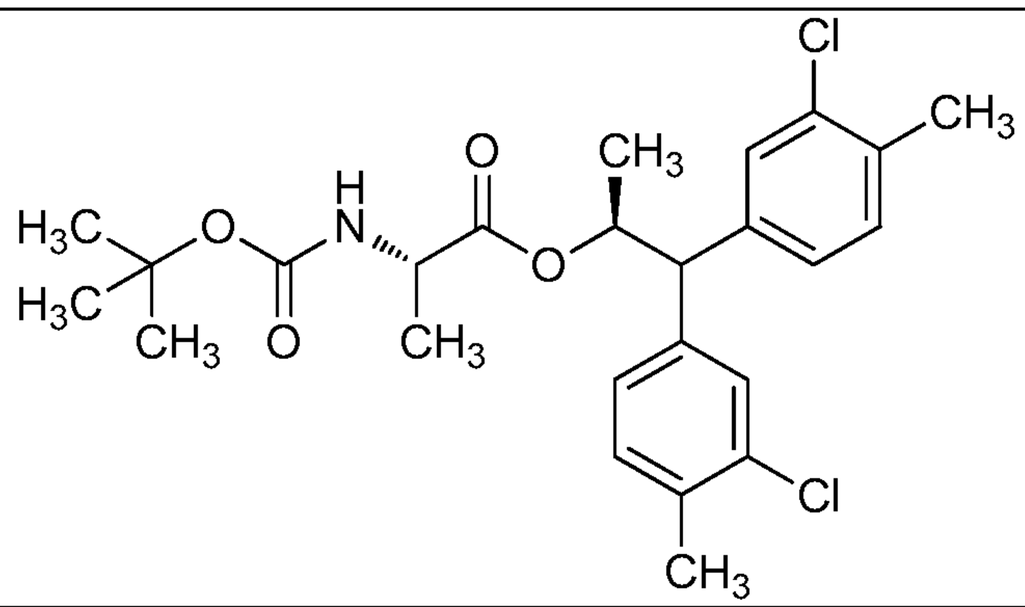
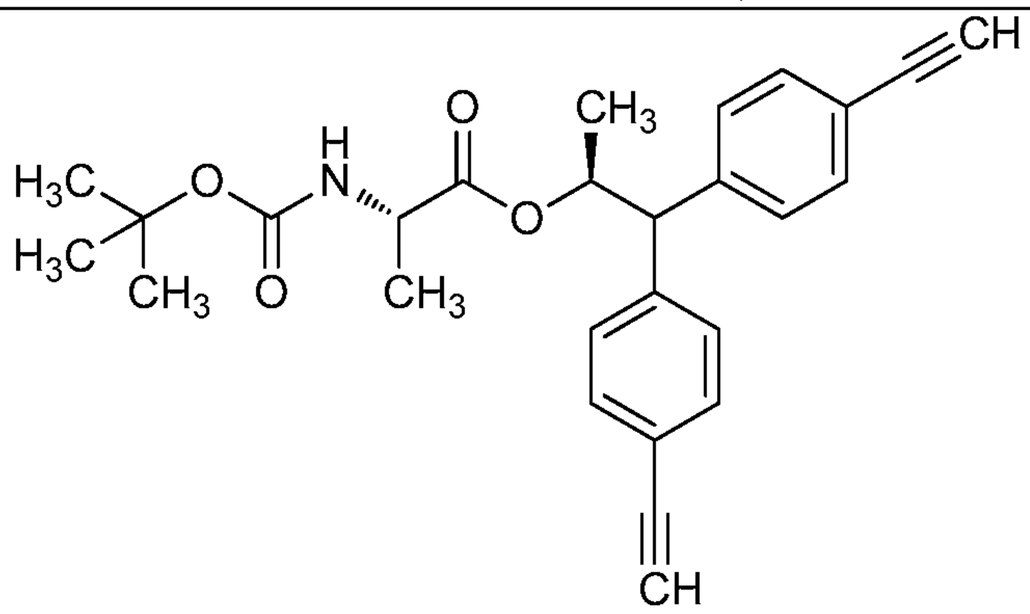
*Cmpd. No.	Structure	Prepared According To Example	Appearance
1		Example 1; Example 3A; Example 4A	White Solid
2		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
3		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
4		Example 1; Example 2A; Example 3A; Example 4A	Clear, Colorless Oil
5		Example 1; Example 2B; Example 3A; Example 4A	Colorless Oil

*Cmpd. No.	Structure	Prepared According To Example	Appearance
6		Example 1; Example 2B; Example 3A; Example 4A	Colorless Oil
7		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
8		Example 1; Example 2C; Example 3A; Example 4A	Colorless Oil
9		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
10		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil

*Cmpd. No.	Structure	Prepared According To Example	Appearance
11		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
12		Example 3E; Example 4A	Colorless Oil
13		Example 3E; Example 4A	Colorless Oil
14		Example 1; Example 3C; Example 4A	Colorless Oil
15		Example 1; Example 3C; Example 4A	Colorless Oil

*Cmpd. No.	Structure	Prepared According To Example	Appearance
16		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
18		Example 3F; Example 4A	Colorless Oil
19		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
20		Example 1; Example 2A; Example 3A; Example 4A	Clear Oil

*Cmpd. No.	Structure	Prepared According To Example	Appearance
21		Example 1; Example 2A; Example 3A; Example 4A	Clear Oil
22		Example 1; Example 2A; Example 3A; Example 4A	Clear Oil
23		Example 1; Example 2A; Example 3A; Example 4A	Clear Oil
24		Example 1; Example 3C; Example 4A	Sticky Wax

*Cmpd. No.	Structure	Prepared According To Example	Appearance
25		Example 1; Example 3C; Example 4A	Sticky Wax
26		Example 1; Example 3C; Example 4A	Sticky Wax
27		Example 1; Example 3C; Example 4A	Sticky Wax
28		Example 1; Example 3C; Example 3D, Steps 1–2; Example 4A	White Foam

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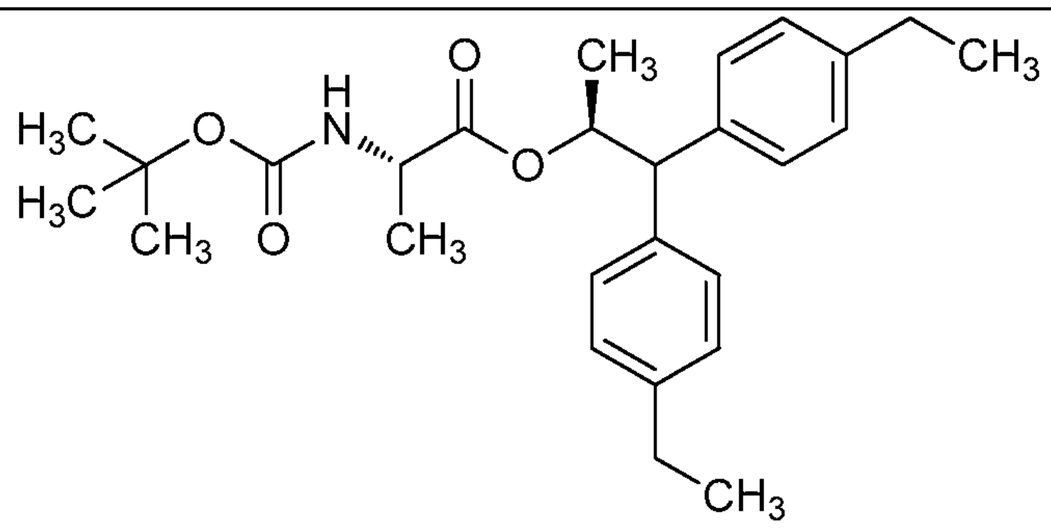
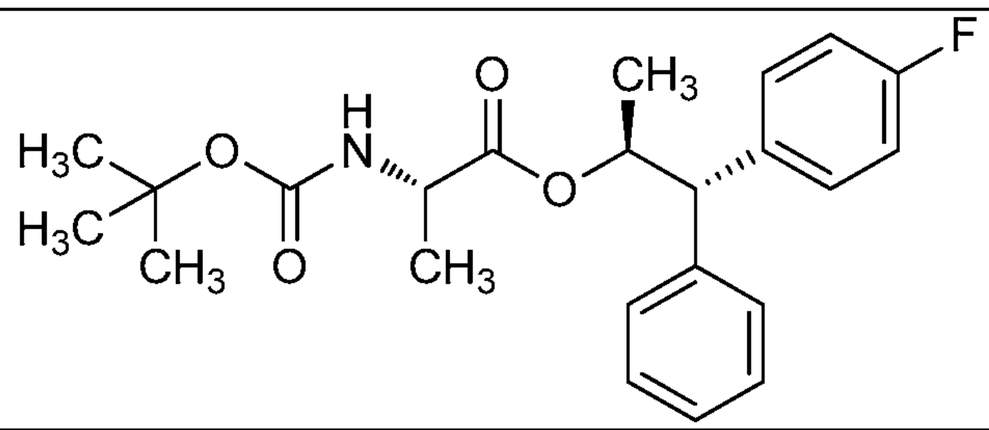
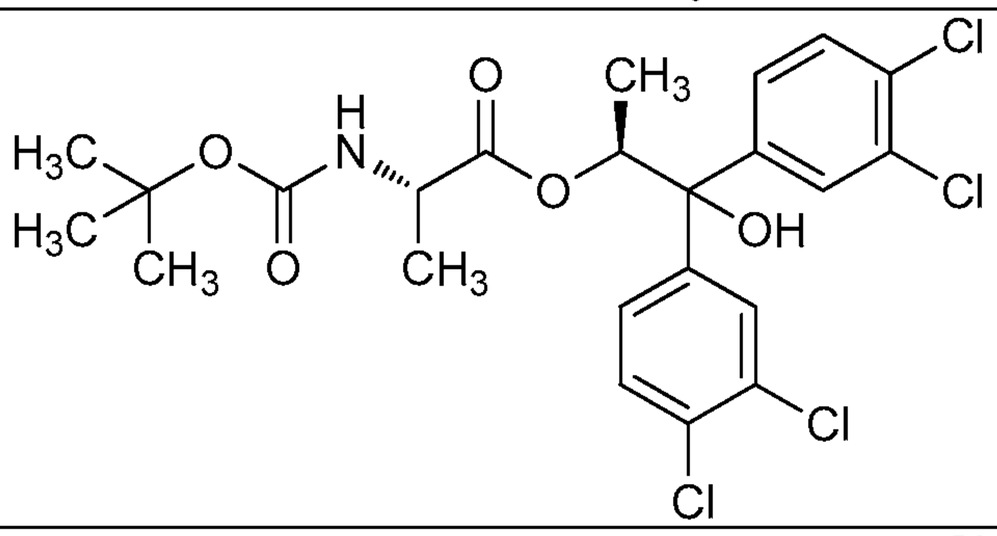
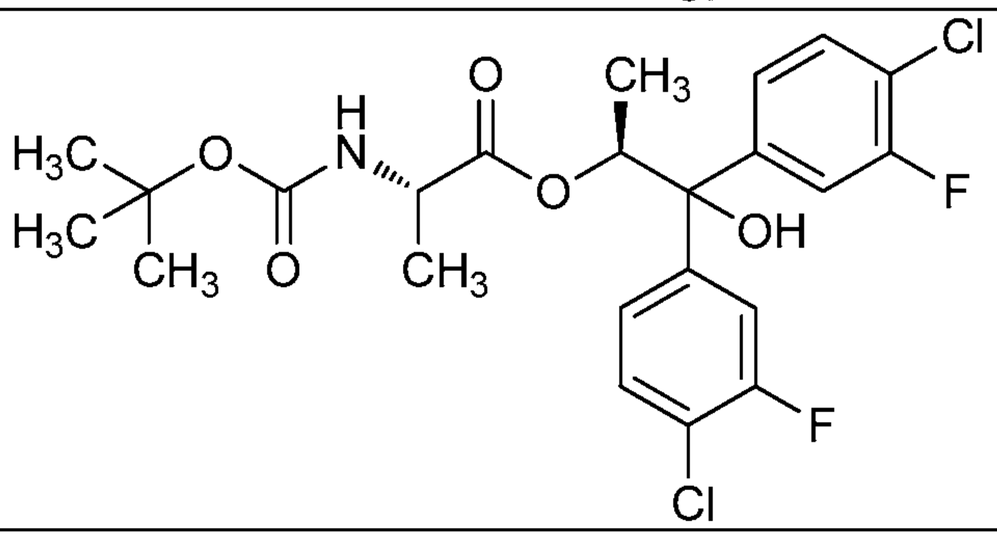
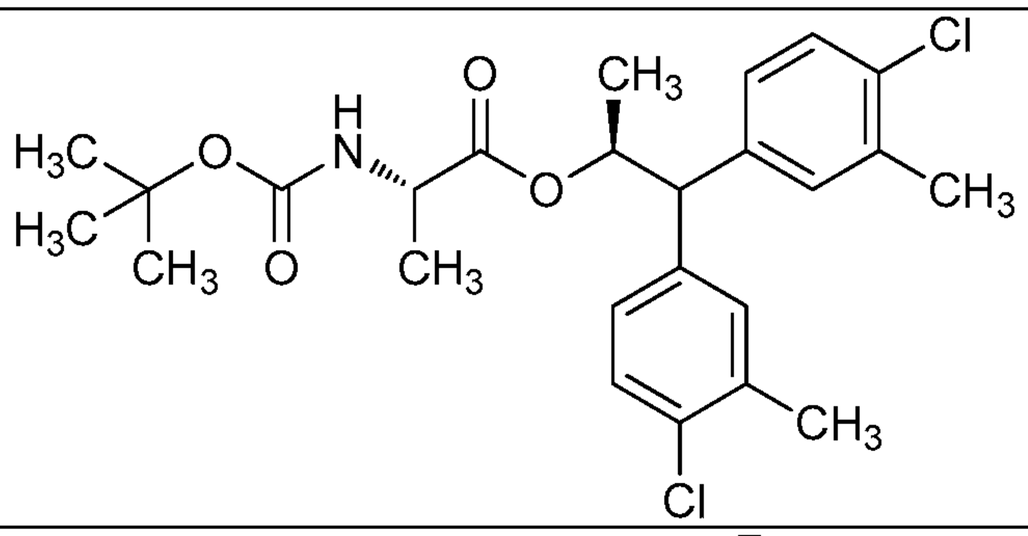
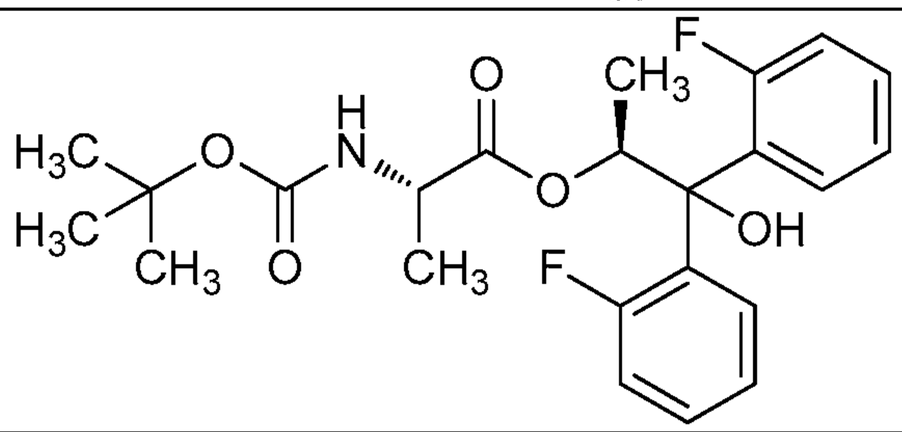
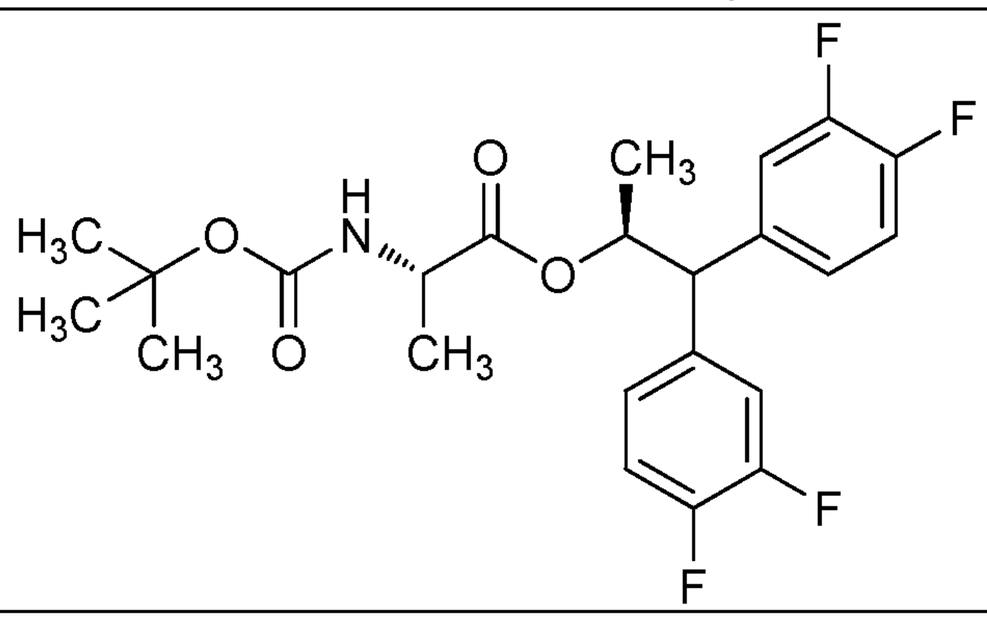
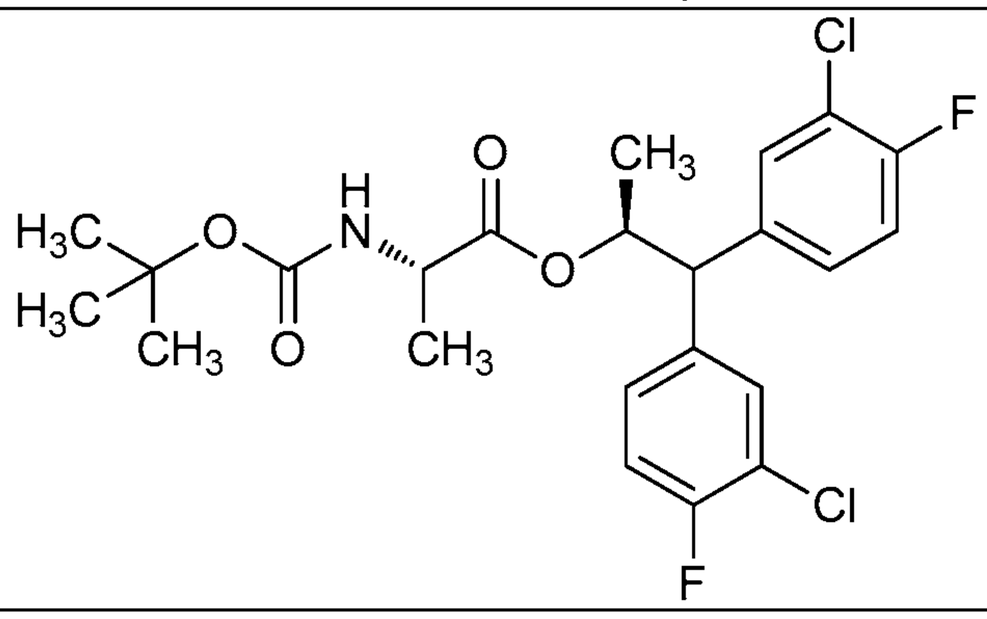
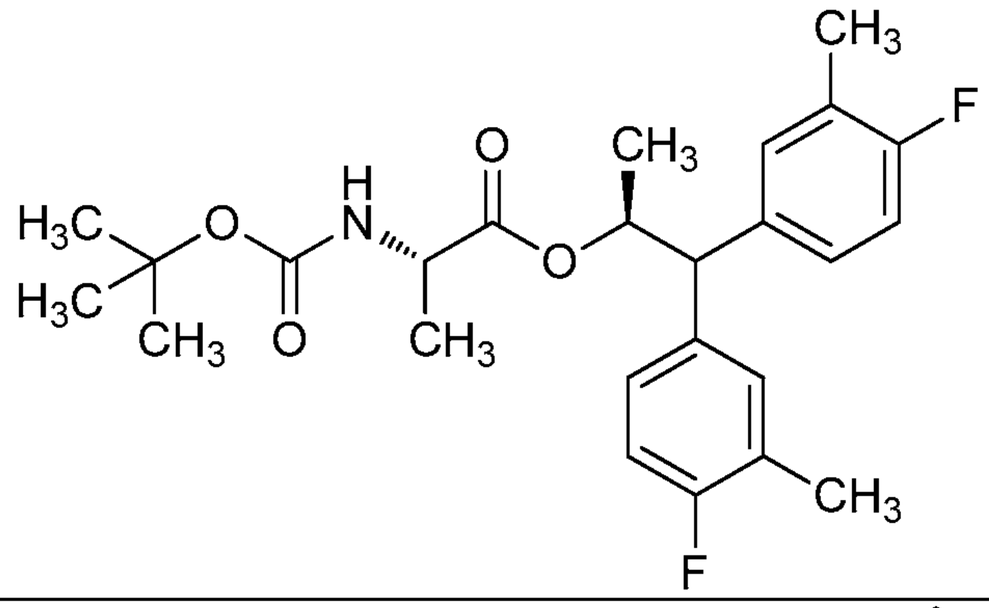
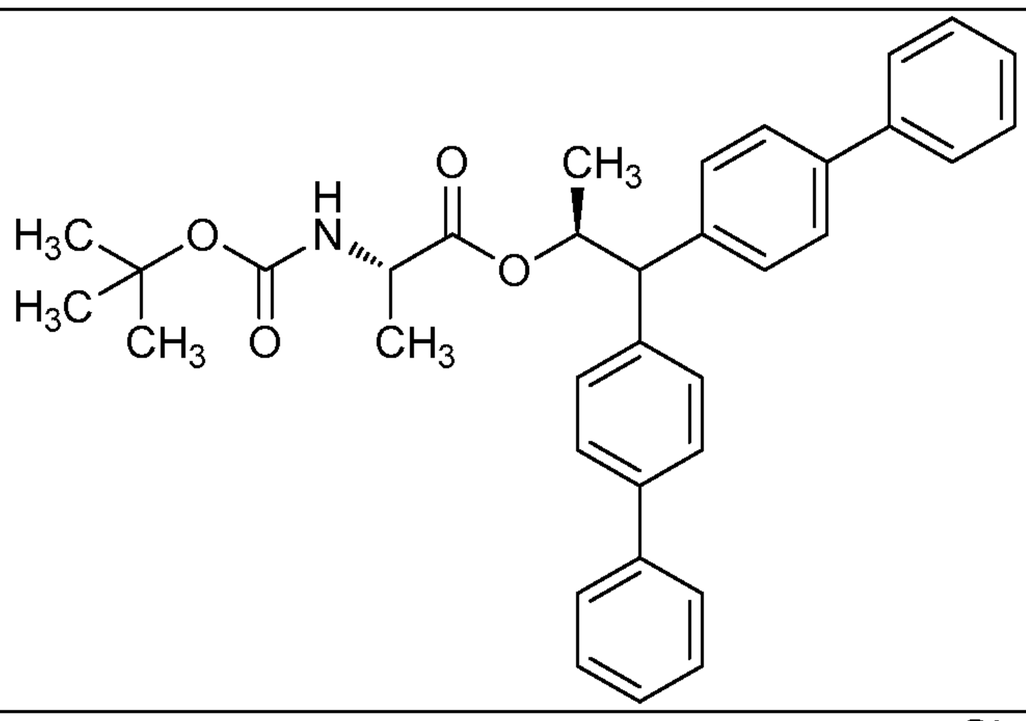
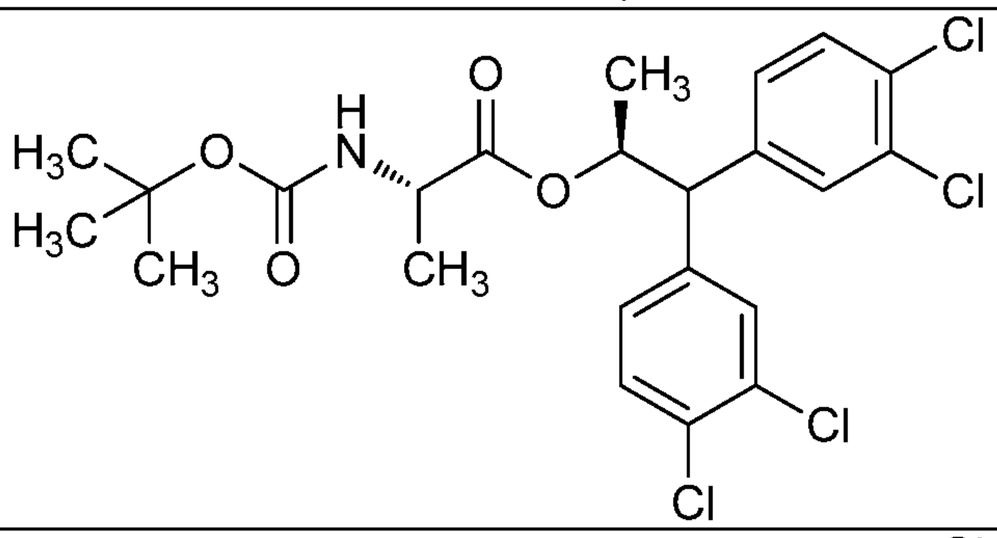
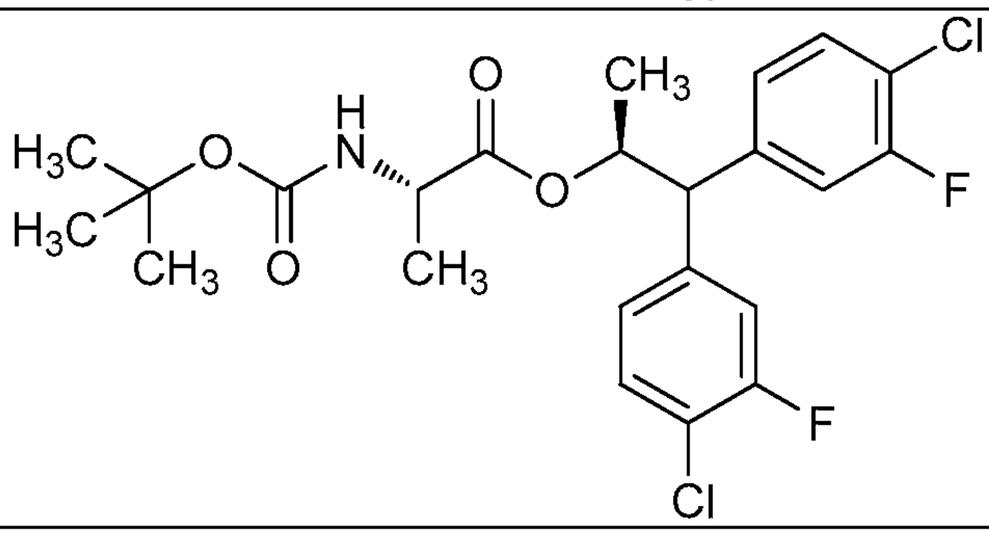
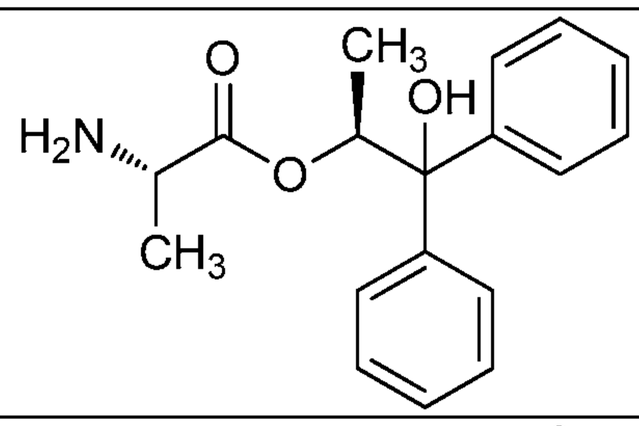
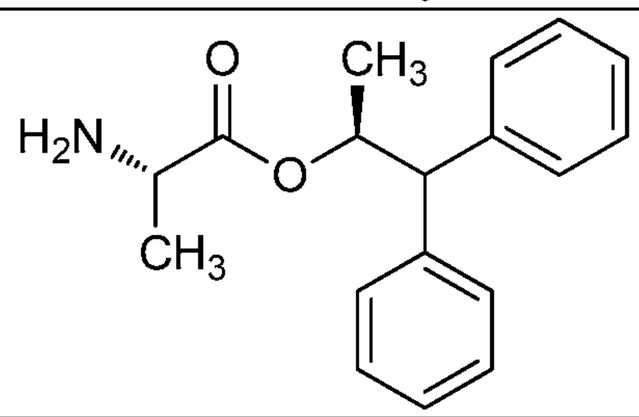
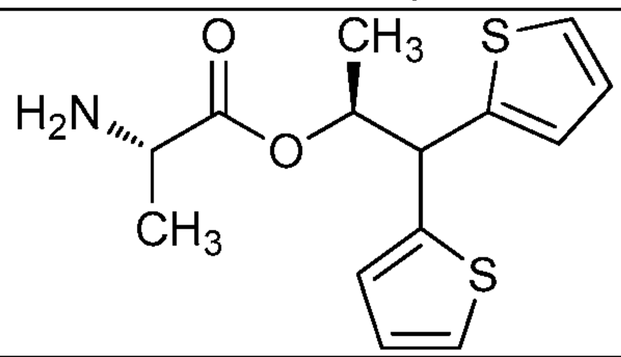
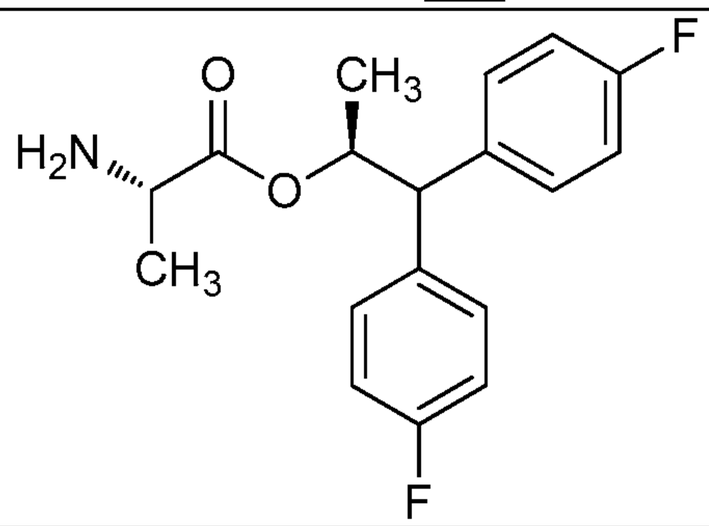
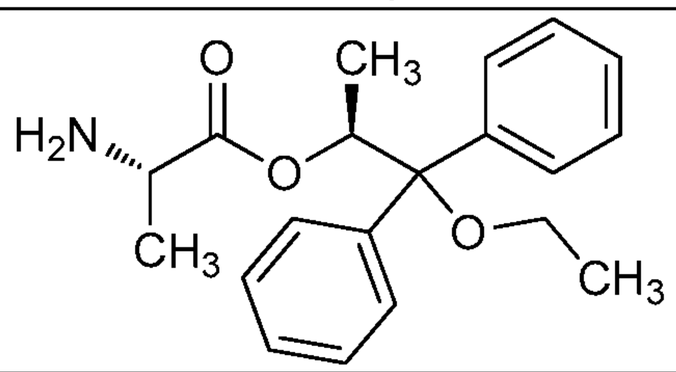
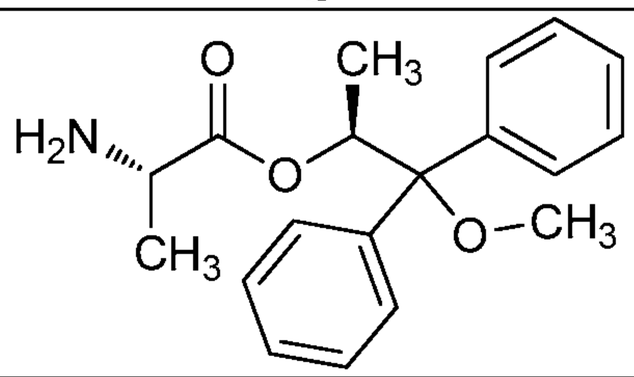
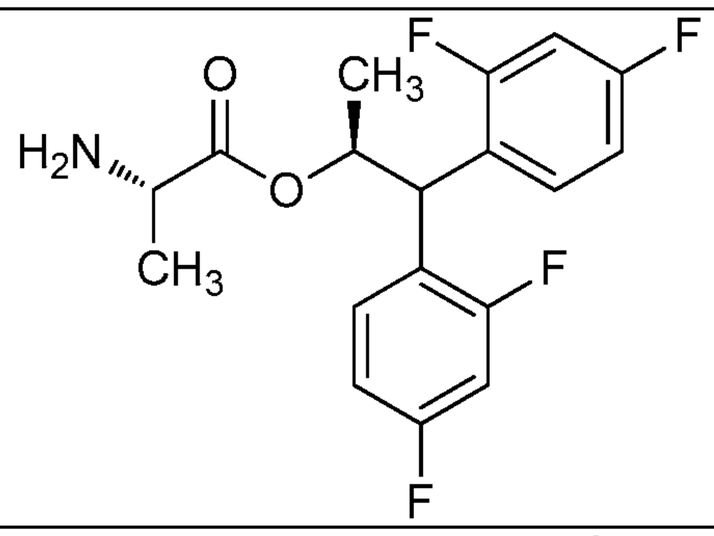
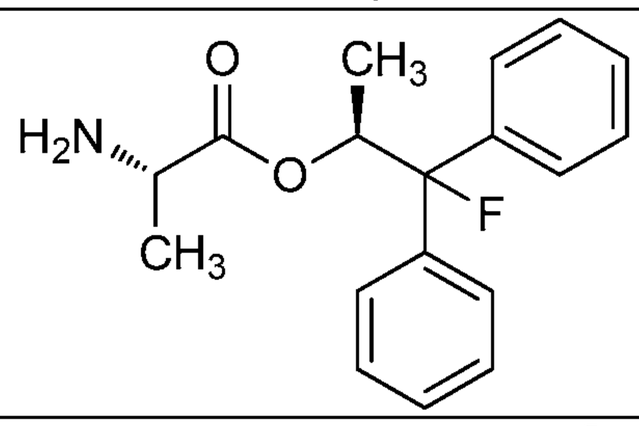
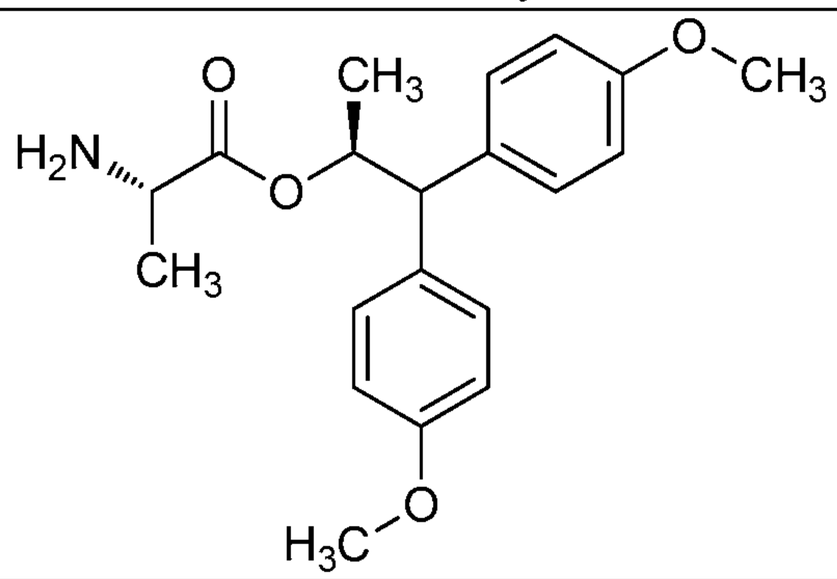
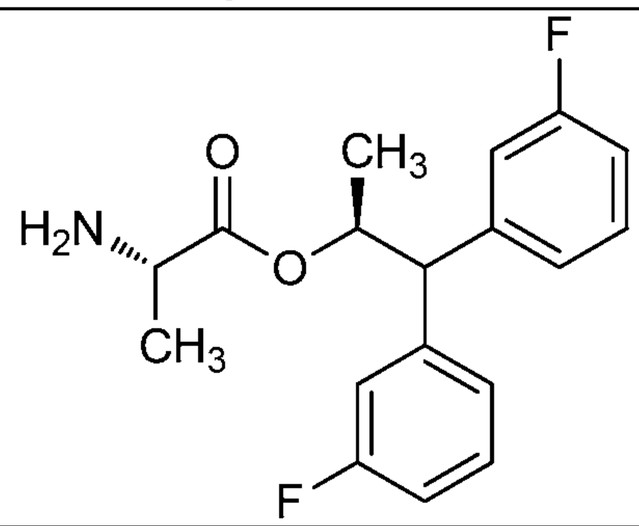
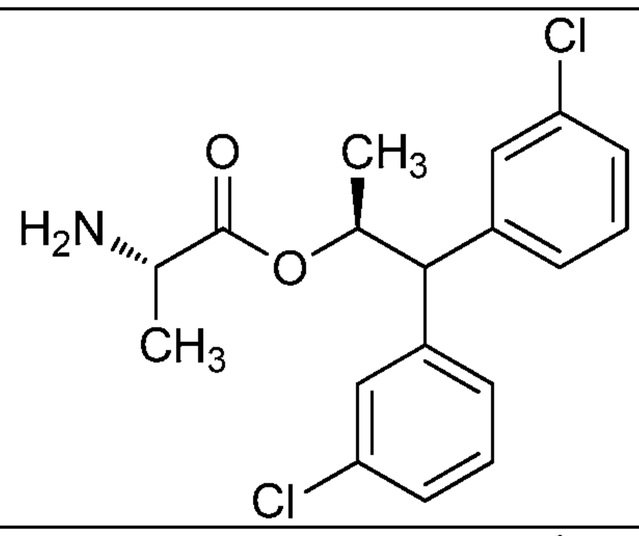
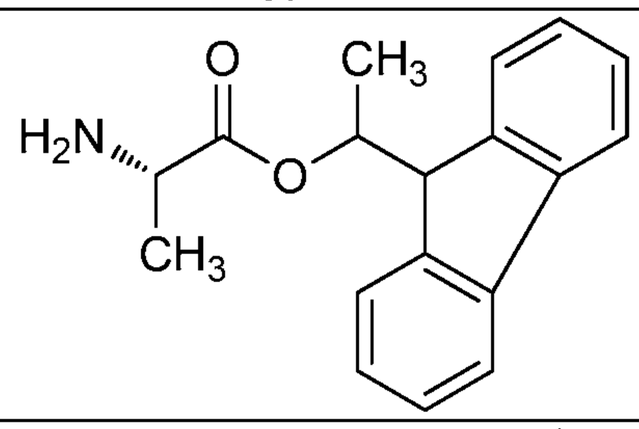
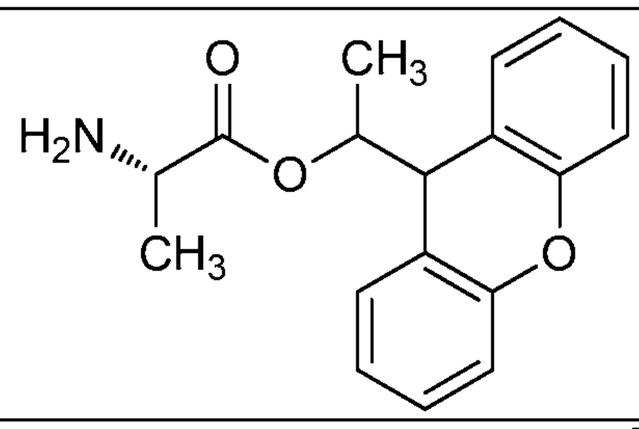
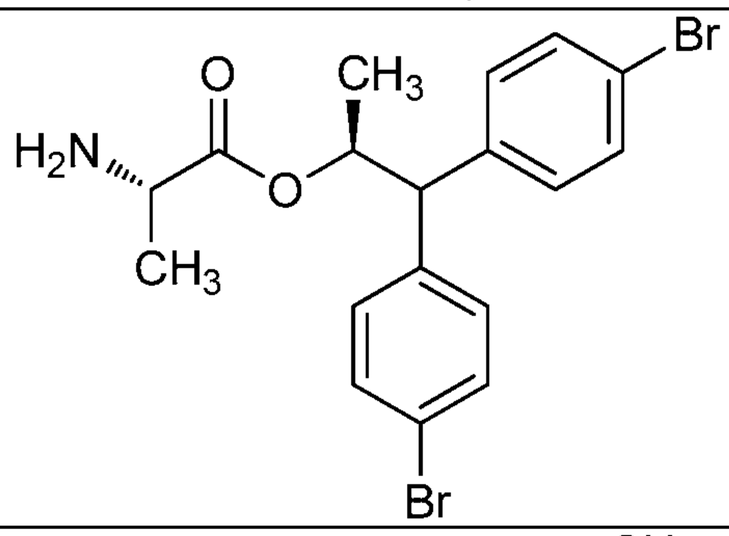
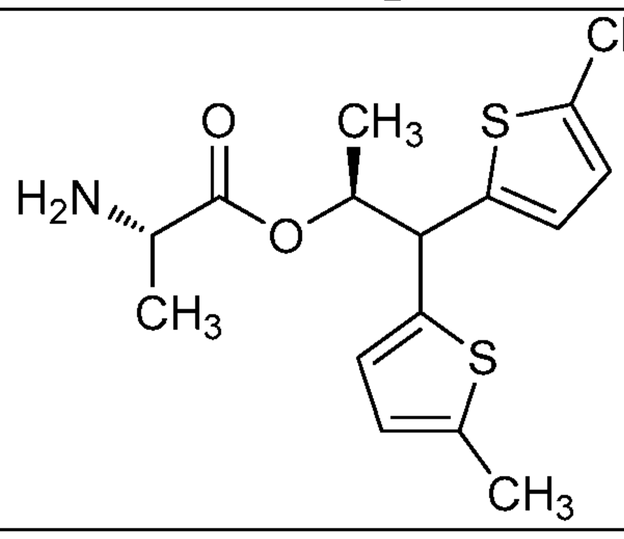
29		Example 1; Example 3C; Example 3D, Steps 1–3; Example 4A	Sticky Wax
31		Example 3F; Example 4A	Clear Oil
33		Example 1; Example 3B; Example 4A	White Solid
34		Example 1; Example 3B; Example 4A	White Solid

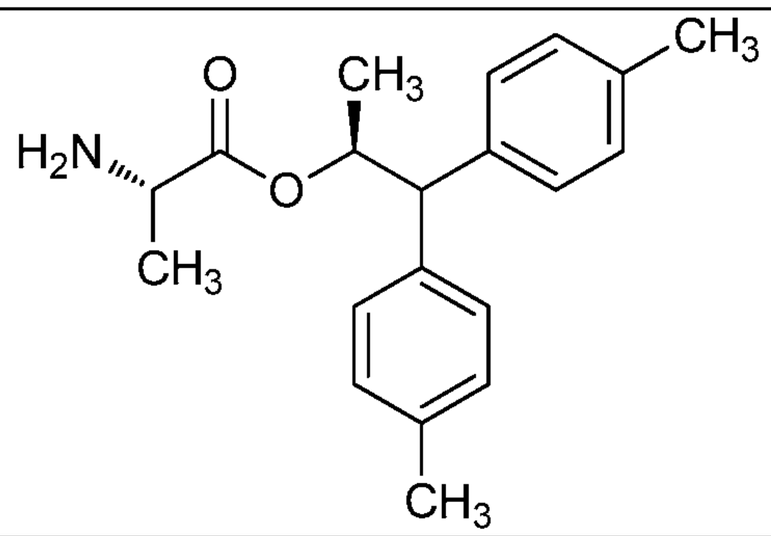
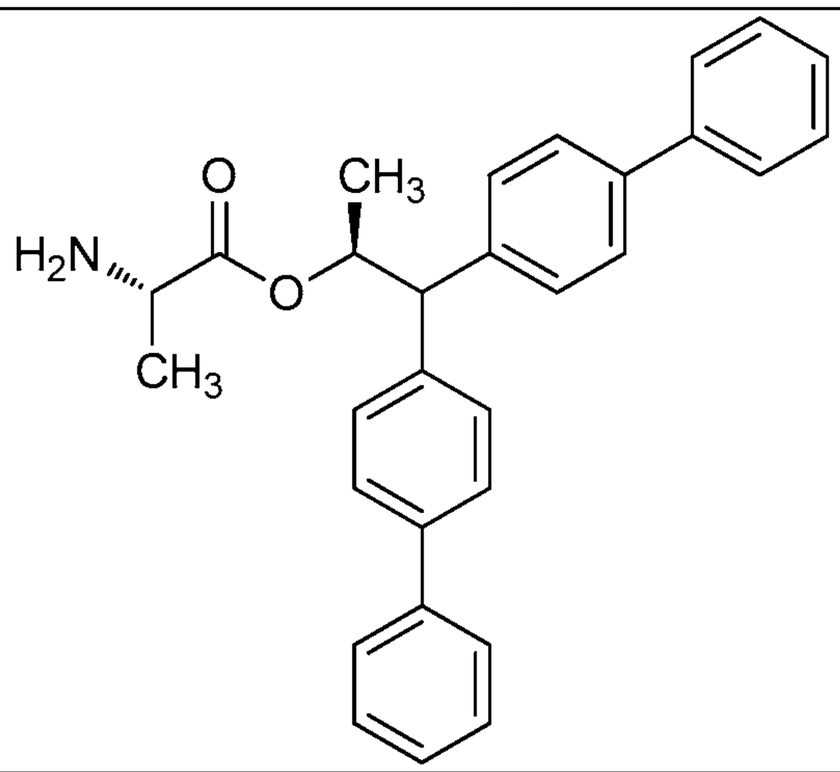
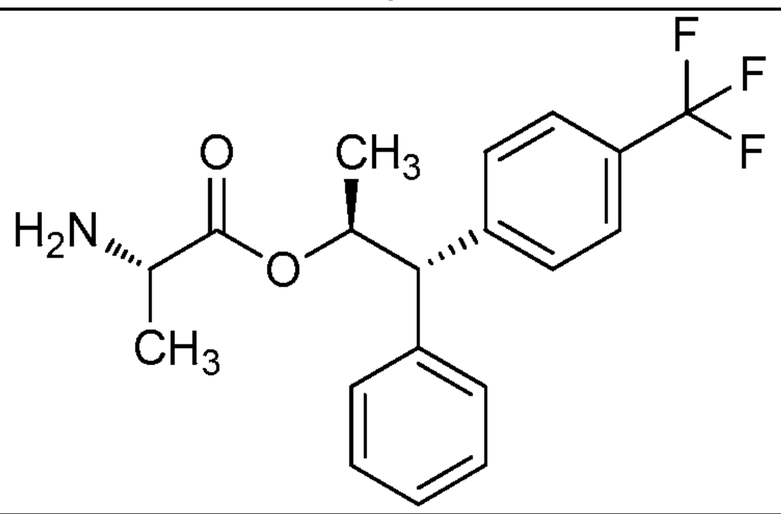
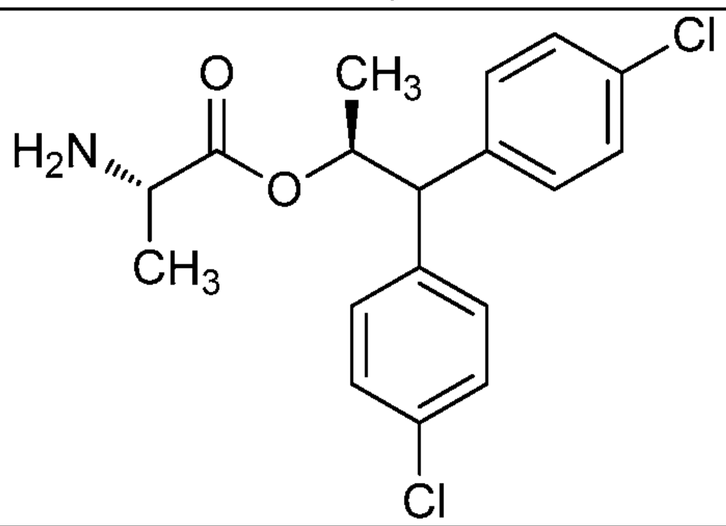
*Cmpd. No.	Structure	Prepared According To Example	Appearance
35		Example 1; Example 2A; Example 3A; Example 4A	White Solid
36		Example 1; Example 3B; Example 4A	White Foam
37		Example 1; Example 2A; Example 3A; Example 4A	Clear, Colorless Oil
38		Example 1; Example 2A; Example 3A; Example 4A	Clear, Colorless Oil

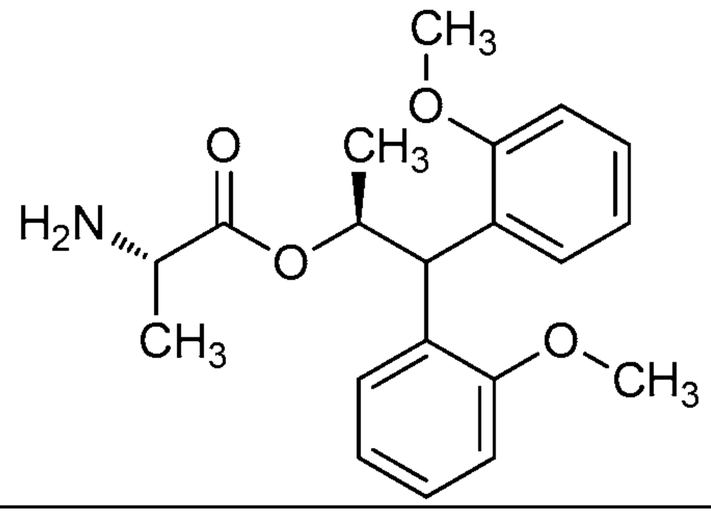
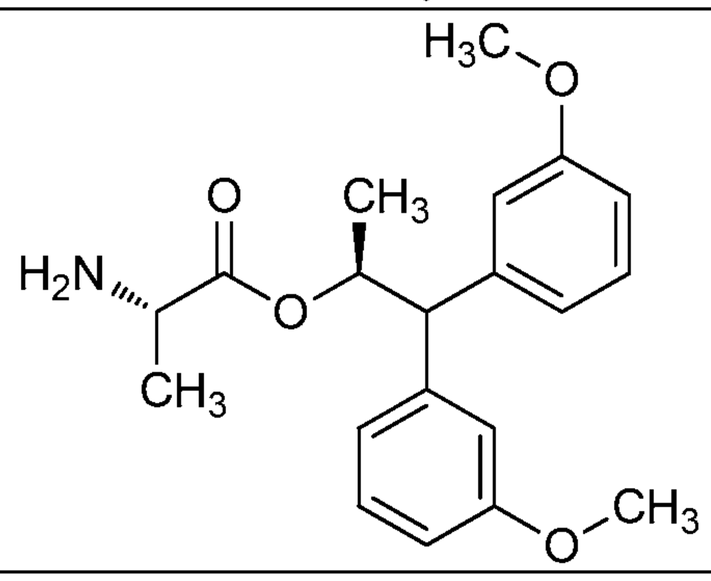
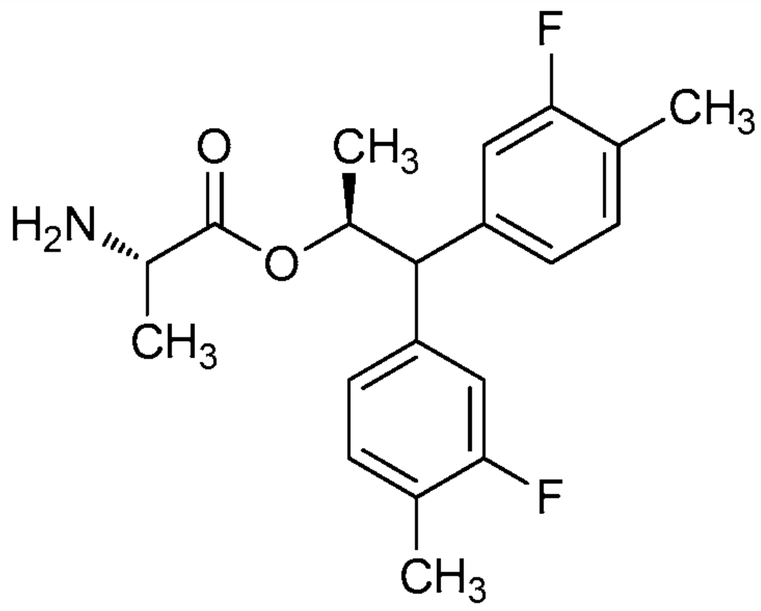
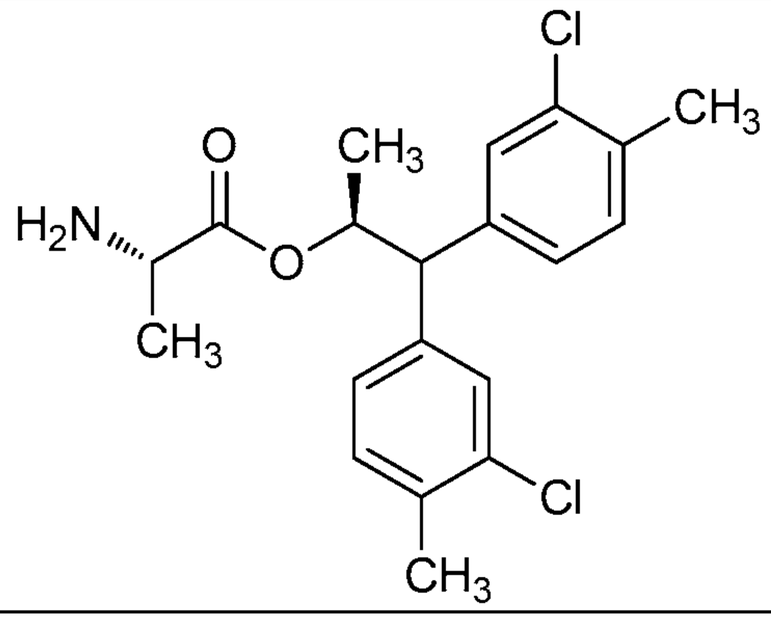
*Cmpd. No.	Structure	Prepared According To Example	Appearance
39		Example 1; Example 2A; Example 3A; Example 4A	Clear, Colorless Oil
40		Example 1; Example 2A; Example 3A; Example 4A	White Foam
43		Example 1; Example 2A; Example 3A; Example 4A	White Solid
44		Example 1; Example 2A; Example 3A; Example 4A	White Solid

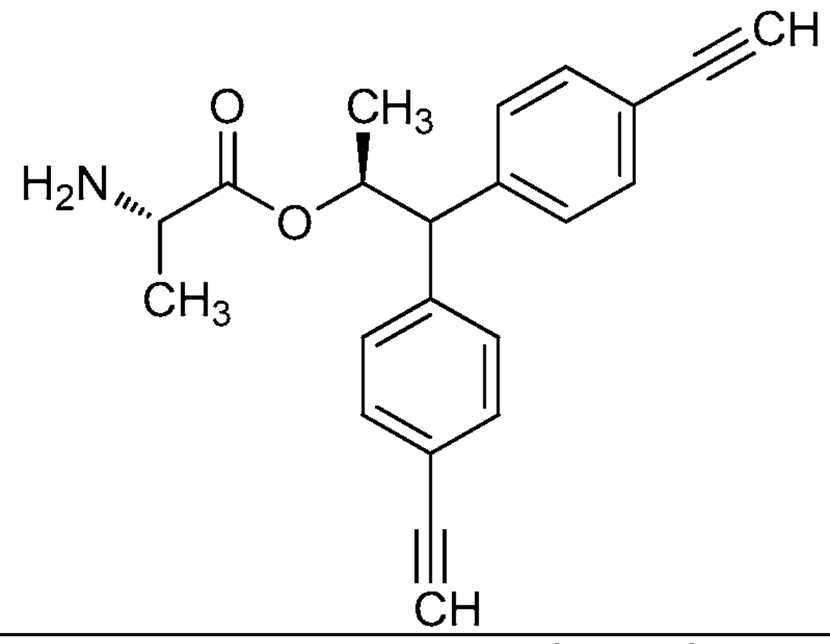
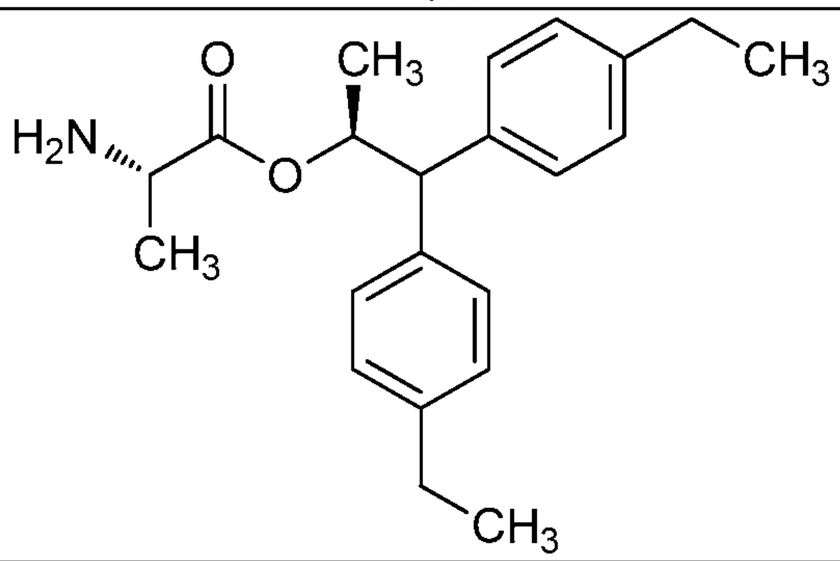
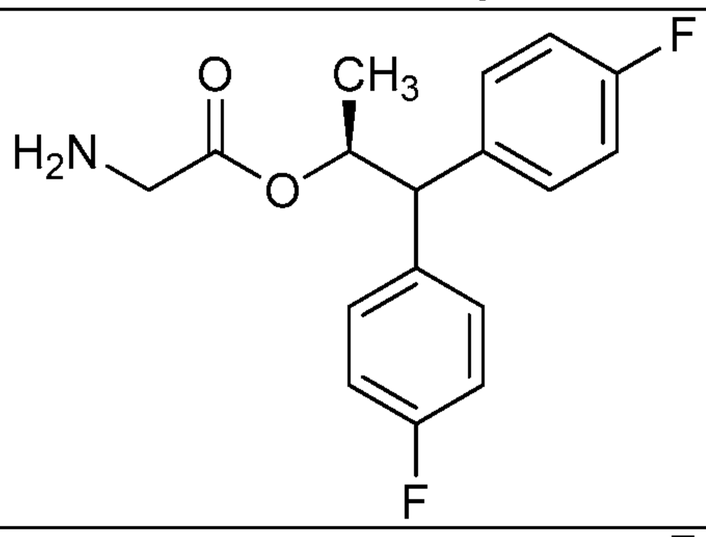
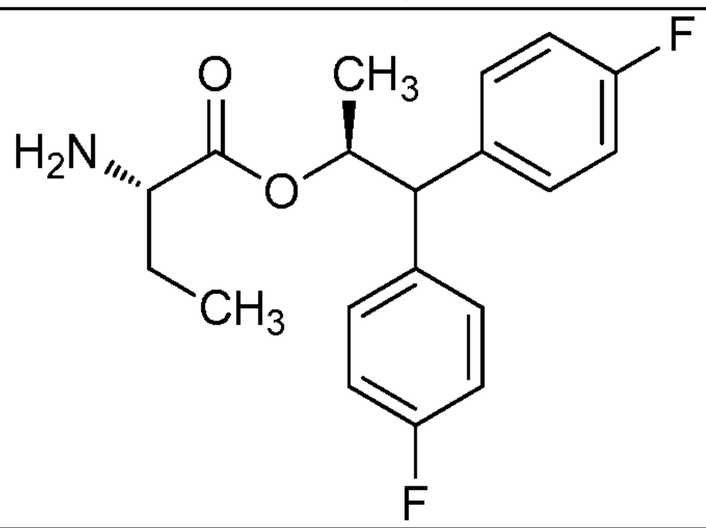
*Cmpd. No.	Structure	Prepared According To Example	Appearance
45		Example 5, Step 1	White Solid
46		Example 5, Step 1	Colorless Oil
47		Example 5, Step 1	Colorless Oil
48		Example 5, Step 1	Pale Yellow Oil
49		Example 5, Step 1	Colorless Oil
50		Example 5, Step 1	Colorless Oil

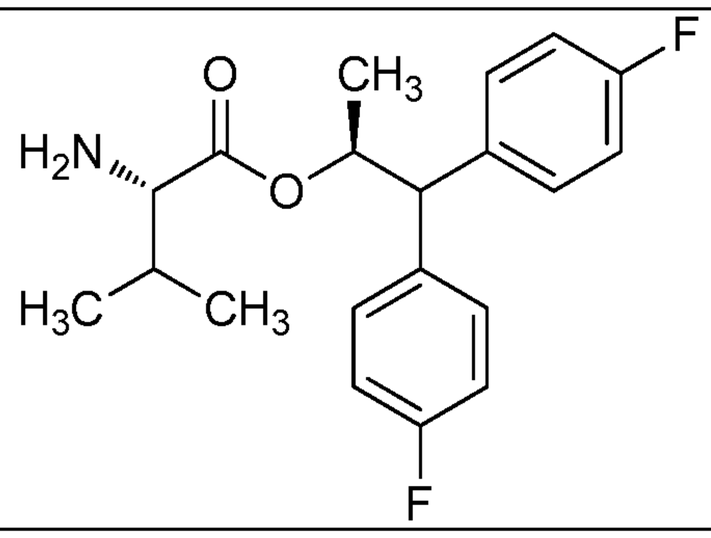
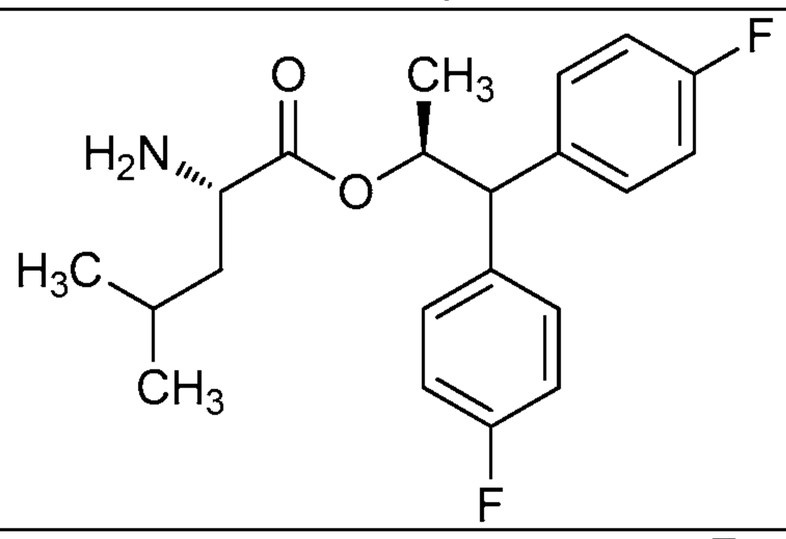
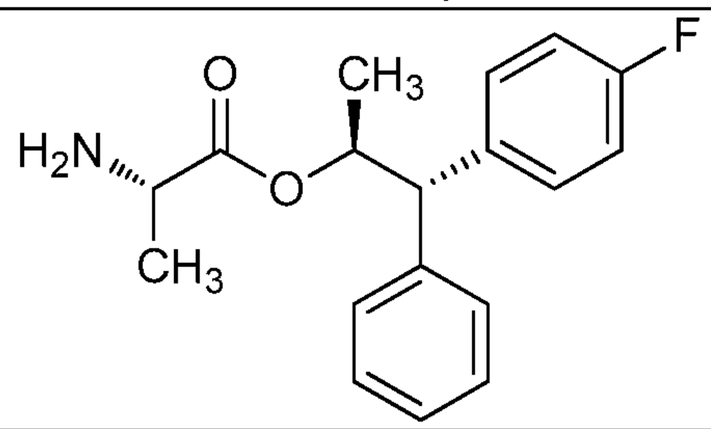
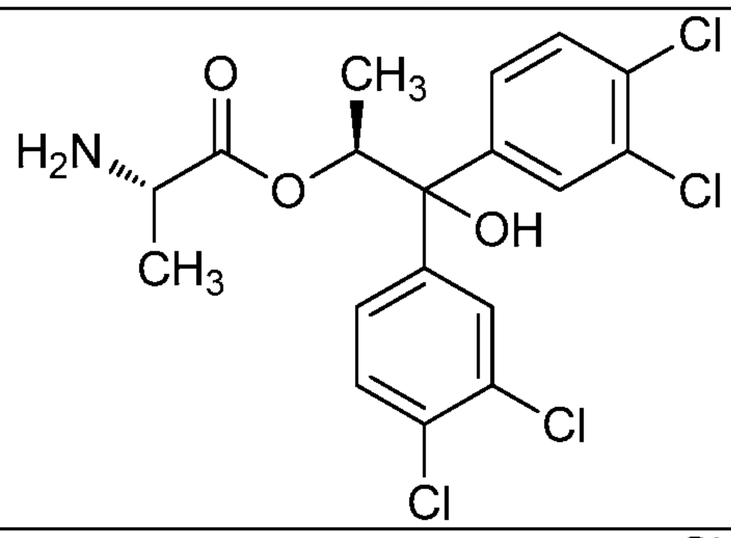
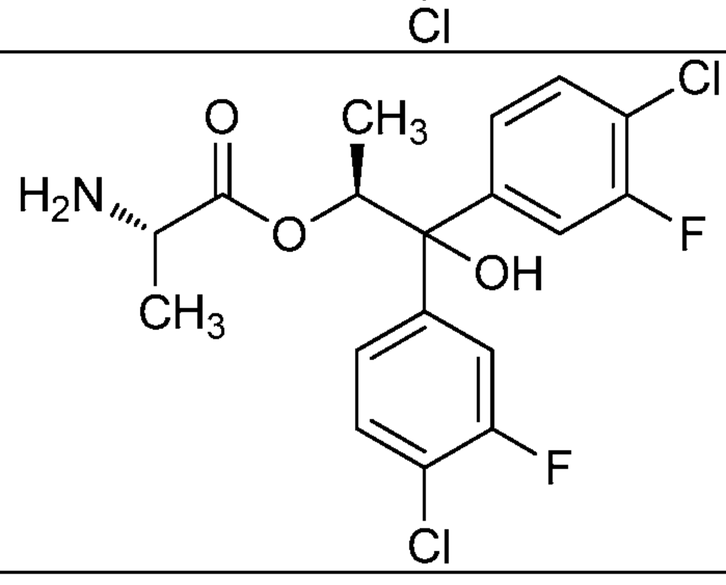
*Cmpd. No.	Structure	Prepared According To Example	Appearance
51		Example 5, Step 1	Colorless Oil
52		Example 5, Step 1	Colorless Oil
53		Example 5, Step 1	Colorless Oil
54		Example 5, Step 1	Colorless Oil

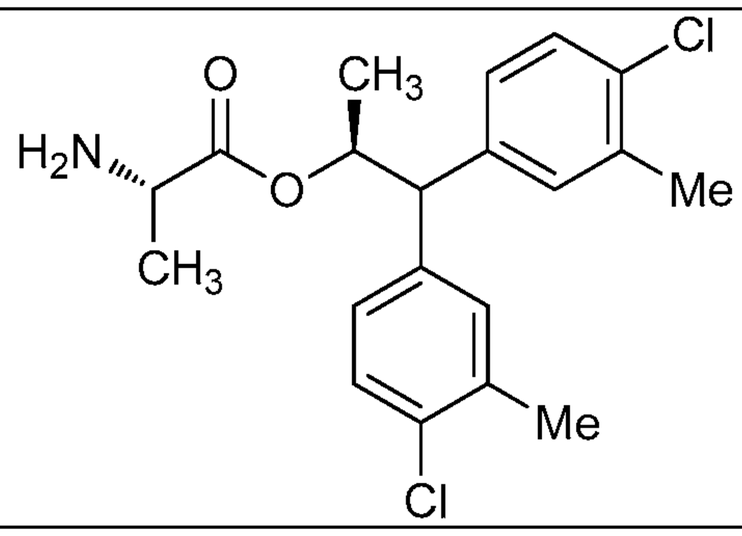
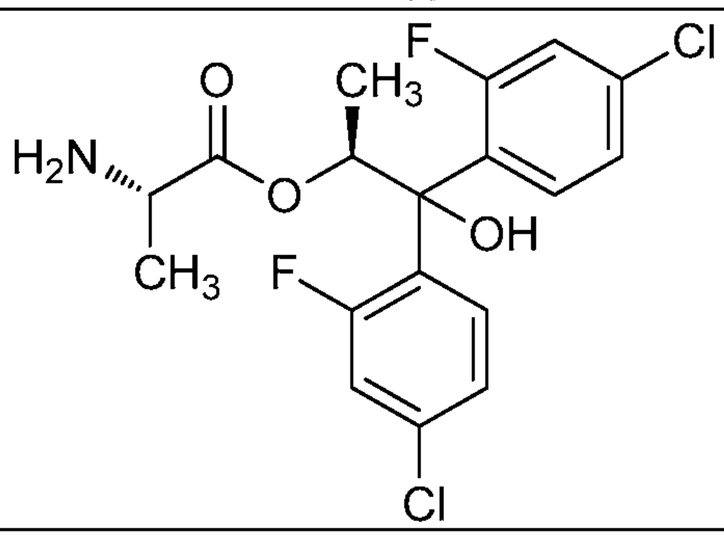
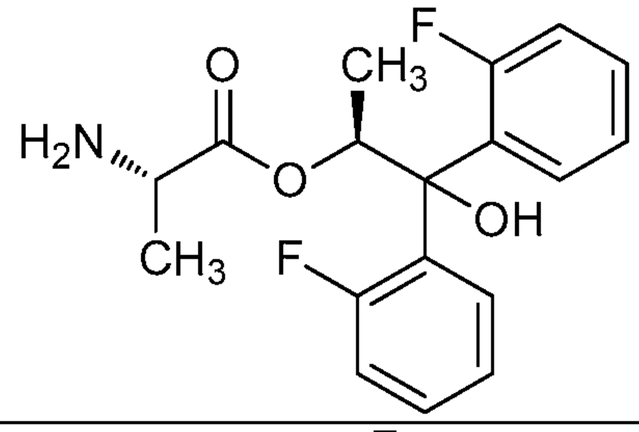
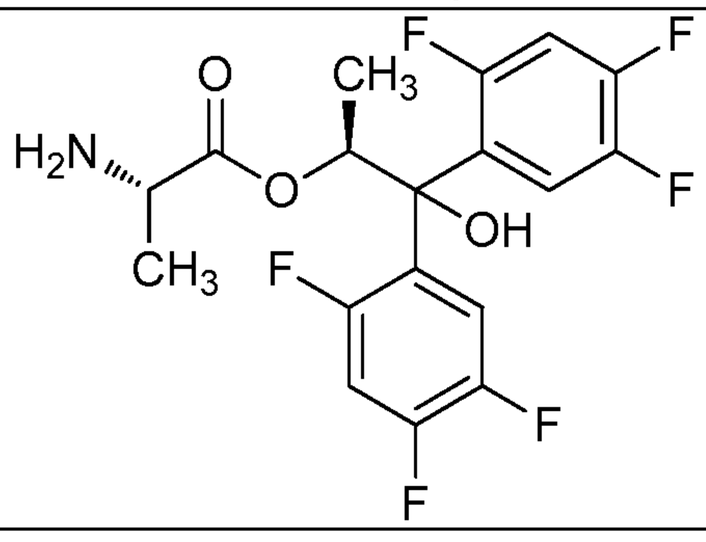
*Cmpd. No.	Structure	Prepared According To Example	Appearance
55		Example 5, Step 1	Colorless Oil
56		Example 5, Step 1	Colorless Oil
57		Example 5, Step 1	Colorless Oil
58		Example 5, Step 1	Colorless Oil
59		Example 5, Step 1	Colorless Oil

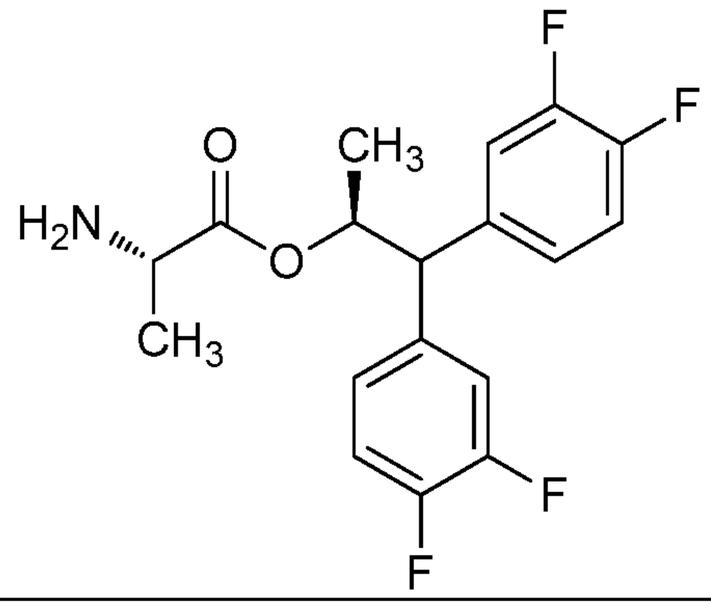
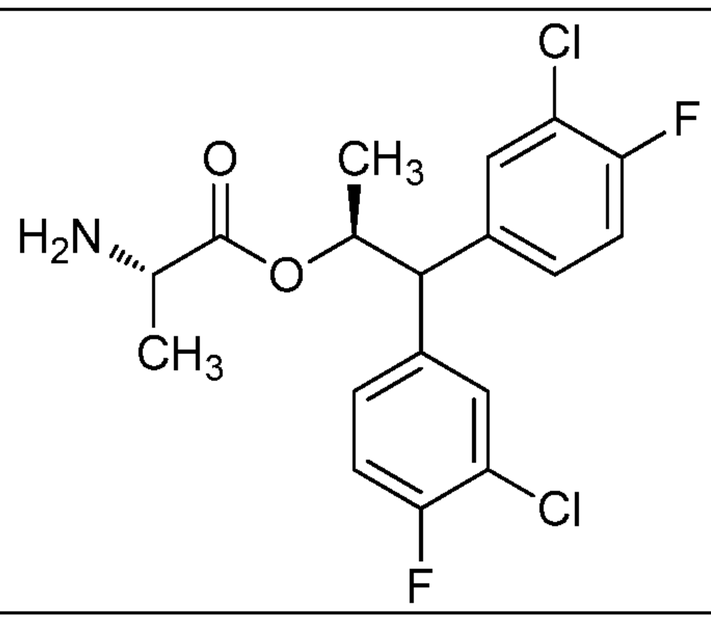
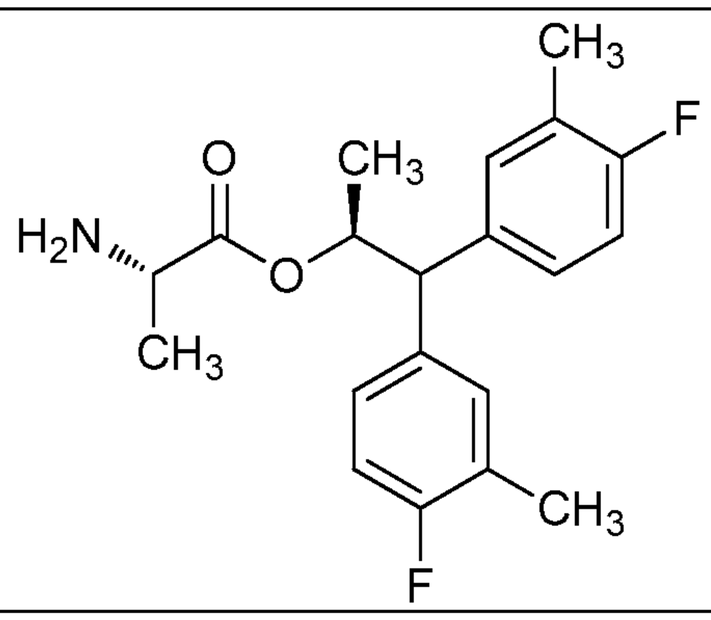
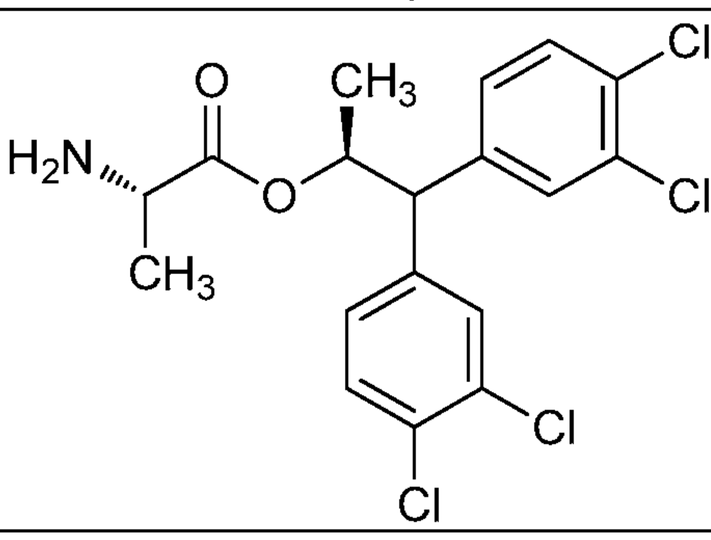
*Cmpd. No.	Structure	Prepared According To Example	Appearance
60		Example 5, Step 1	Colorless Oil
61		Example 5, Step 1	White Solid
63		Example 5, Step 1	Colorless Oil
64		Example 5, Step 1	Colorless Oil

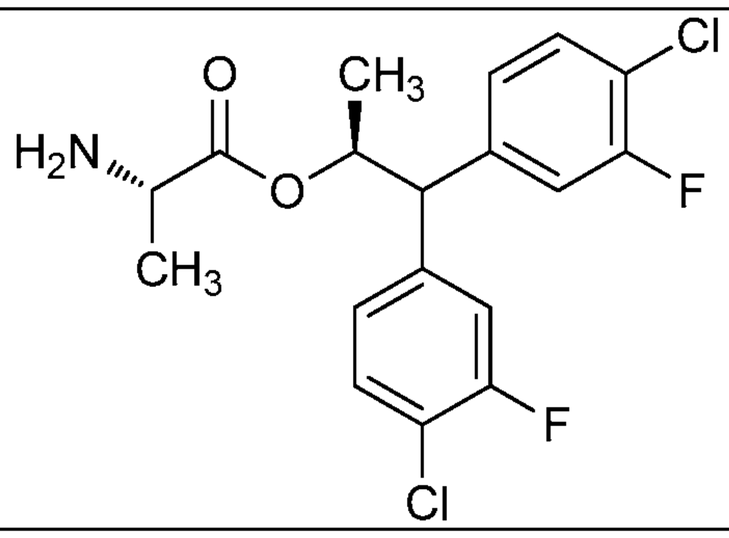
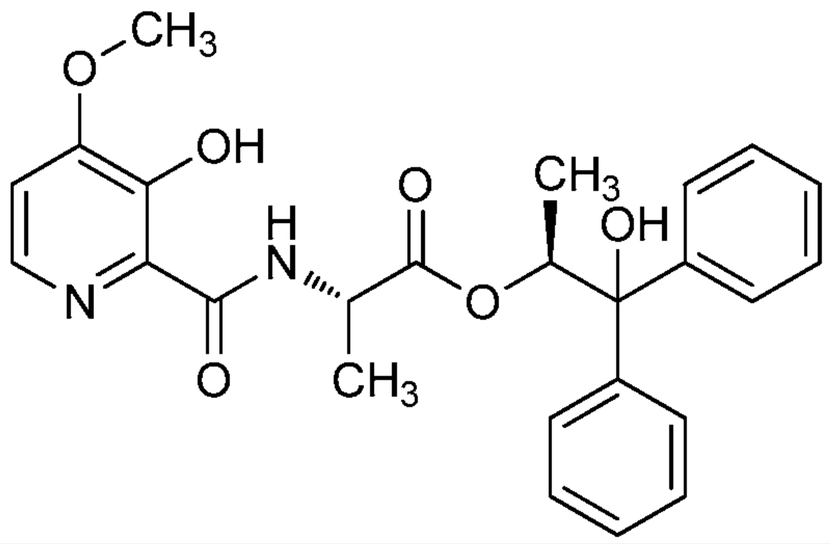
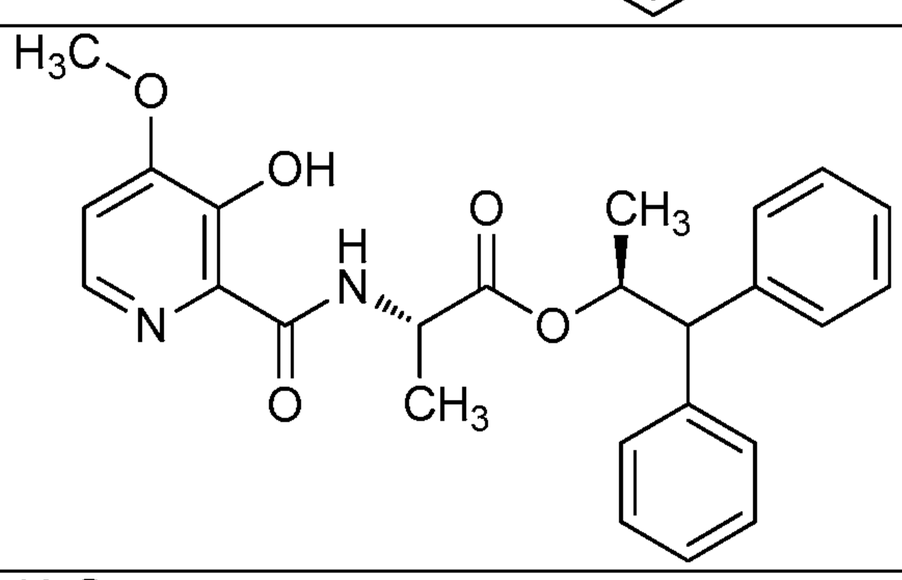
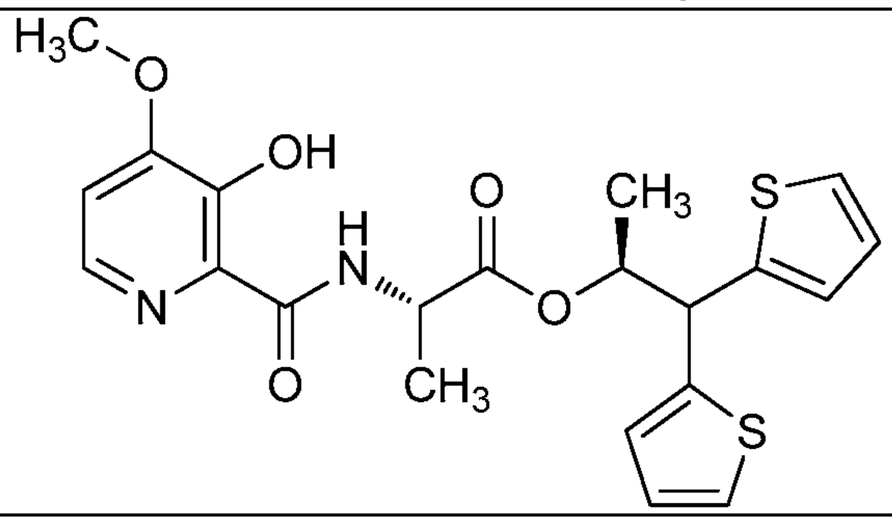
*Cmpd. No.	Structure	Prepared According To Example	Appearance
65		Example 5, Step 1	Sticky Oil
66		Example 5, Step 1	Sticky Oil
67		Example 5, Step 1	Sticky Oil
68		Example 5, Step 1	Sticky Wax

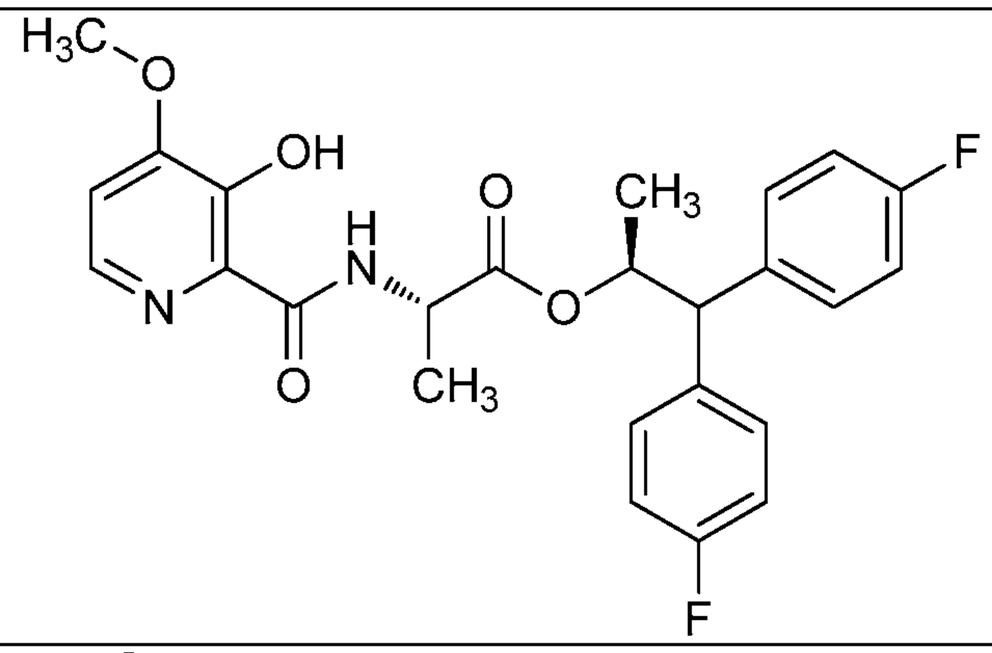
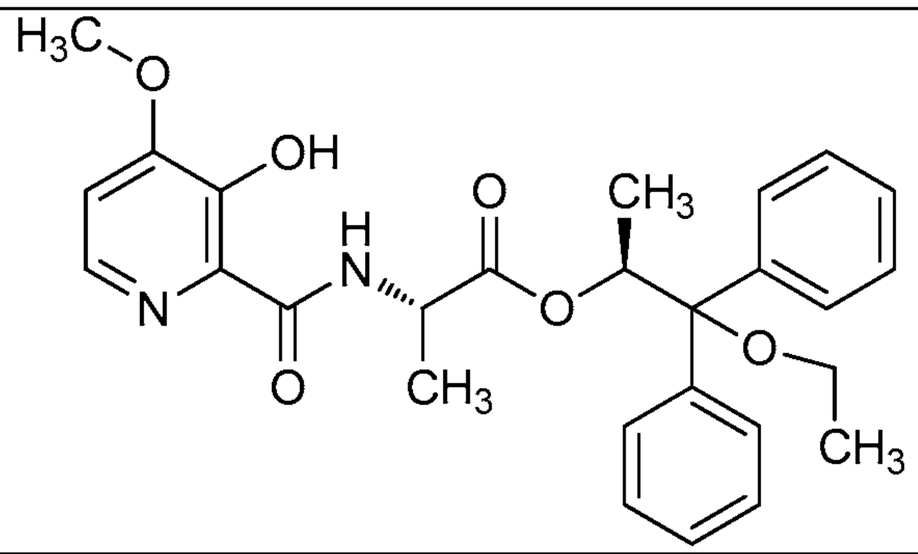
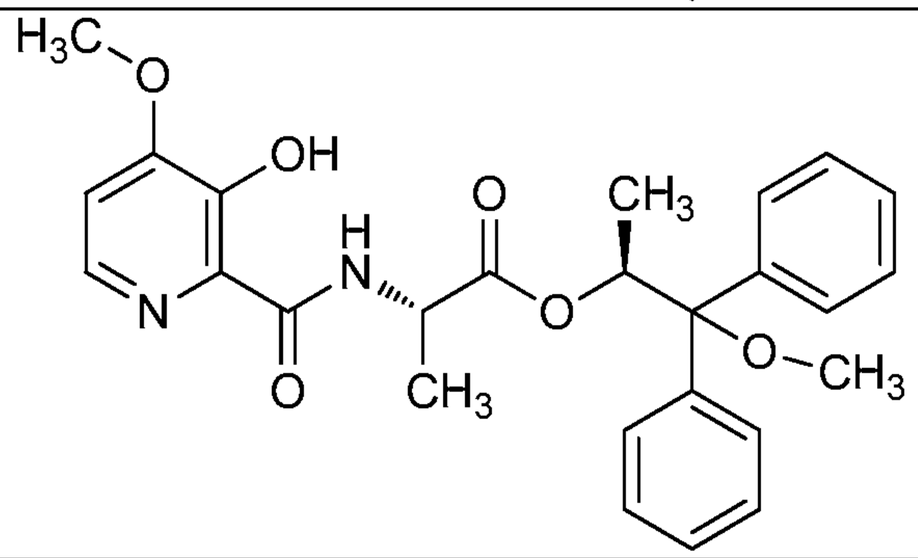
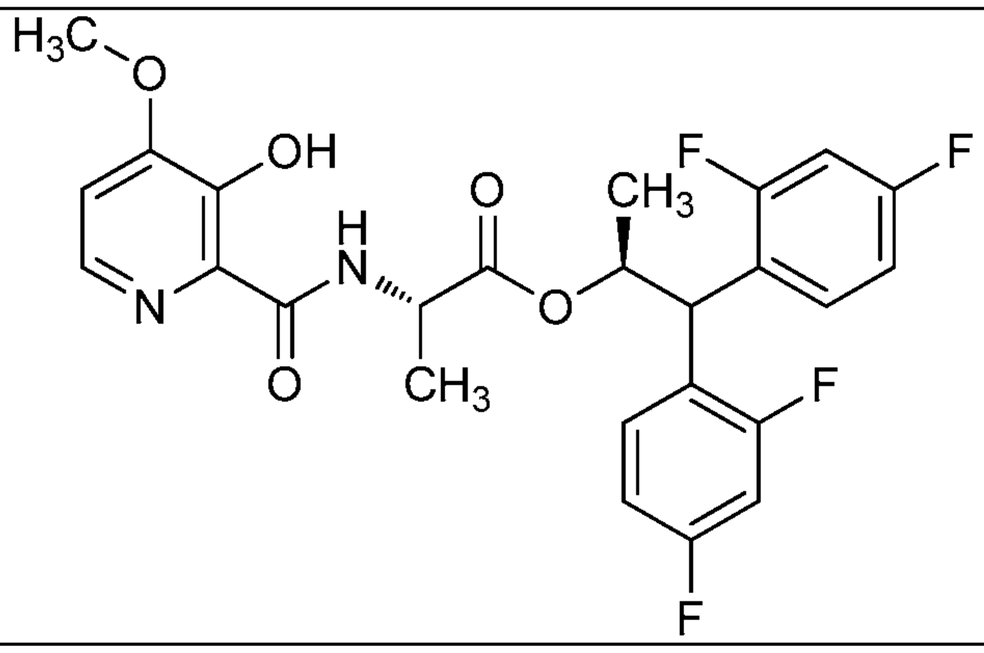
*Cmpd. No.	Structure	Prepared According To Example	Appearance
69		Example 5, Step 1	Sticky Wax
70		Example 5, Step 1	Sticky Wax
71		Example 5, Step 1	White Solid
72		Example 5, Step 1	White Solid

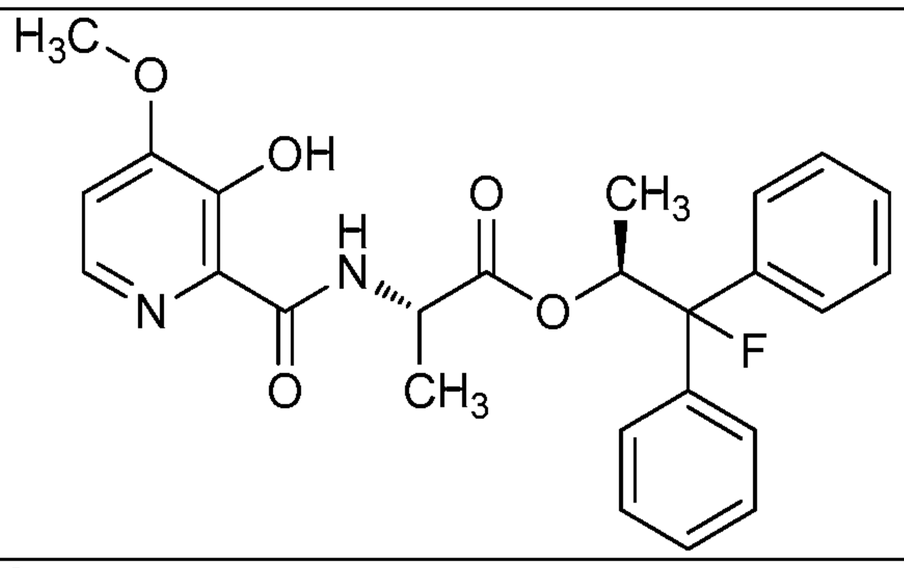
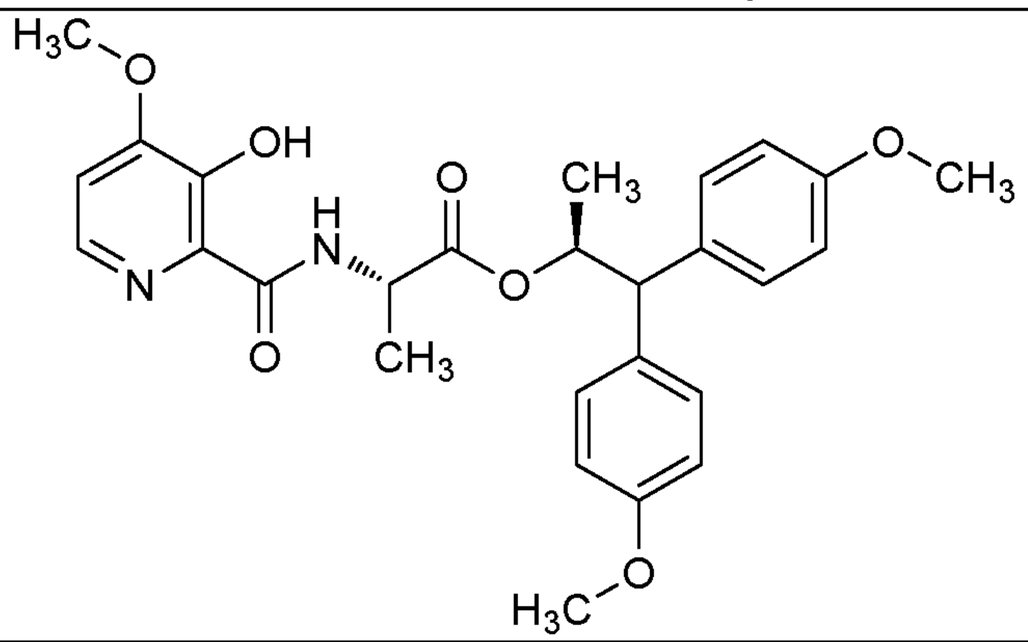
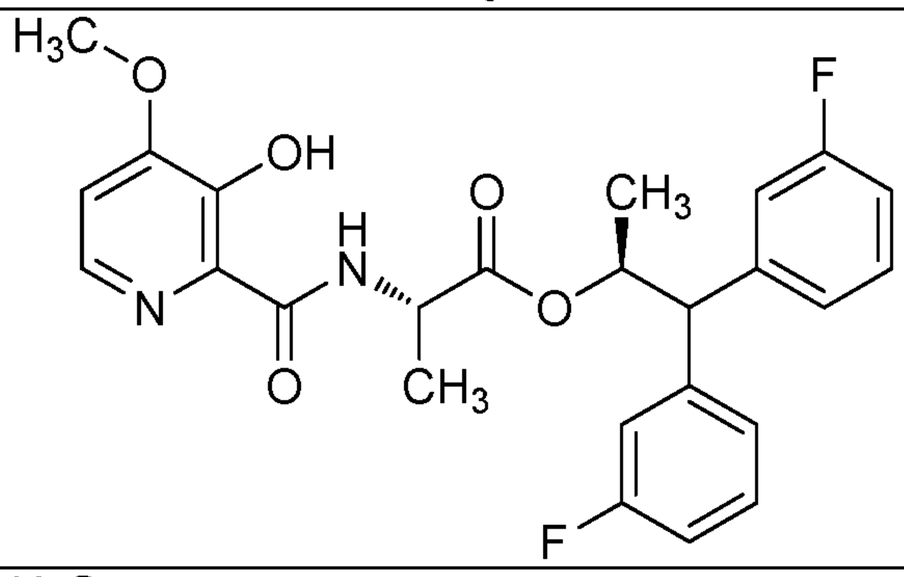
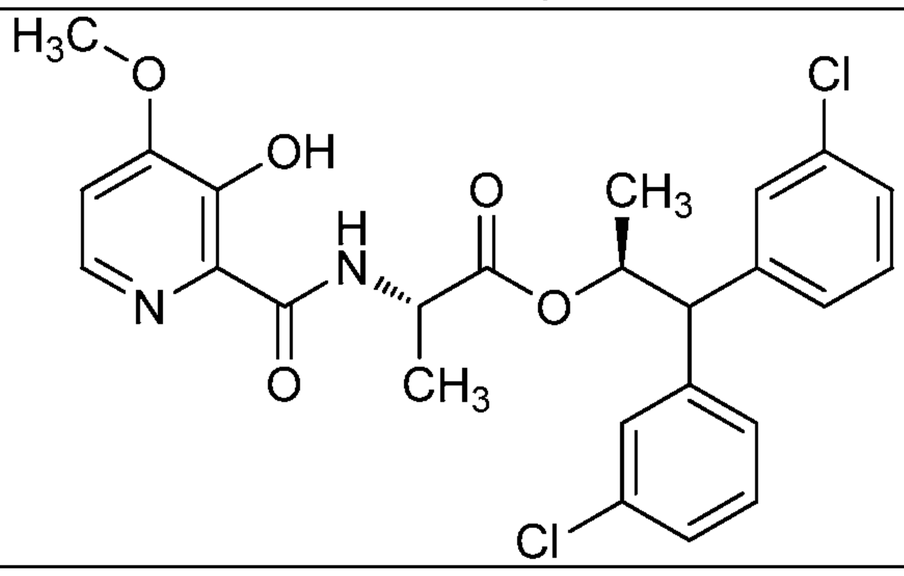
*Cmpd. No.	Structure	Prepared According To Example	Appearance
73		Example 5, Step 1	White Solid
74		Example 5, Step 1	White Solid
75		Example 5, Step 1	White Solid
77		Example 5, Step 1	White Solid
78		Example 5, Step 1	White Solid

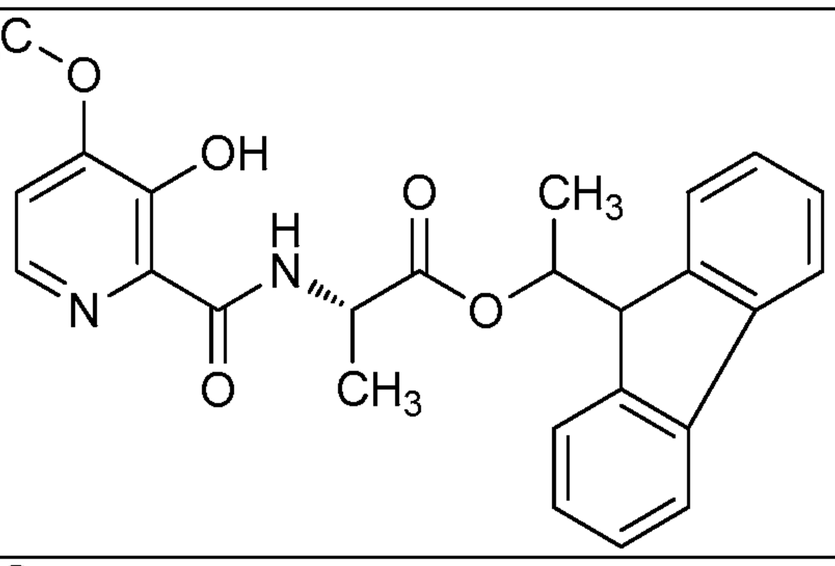
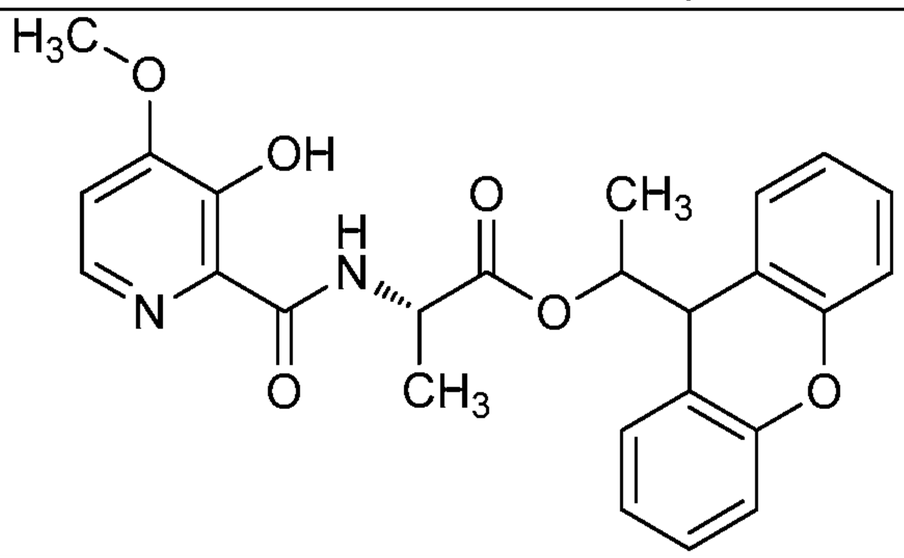
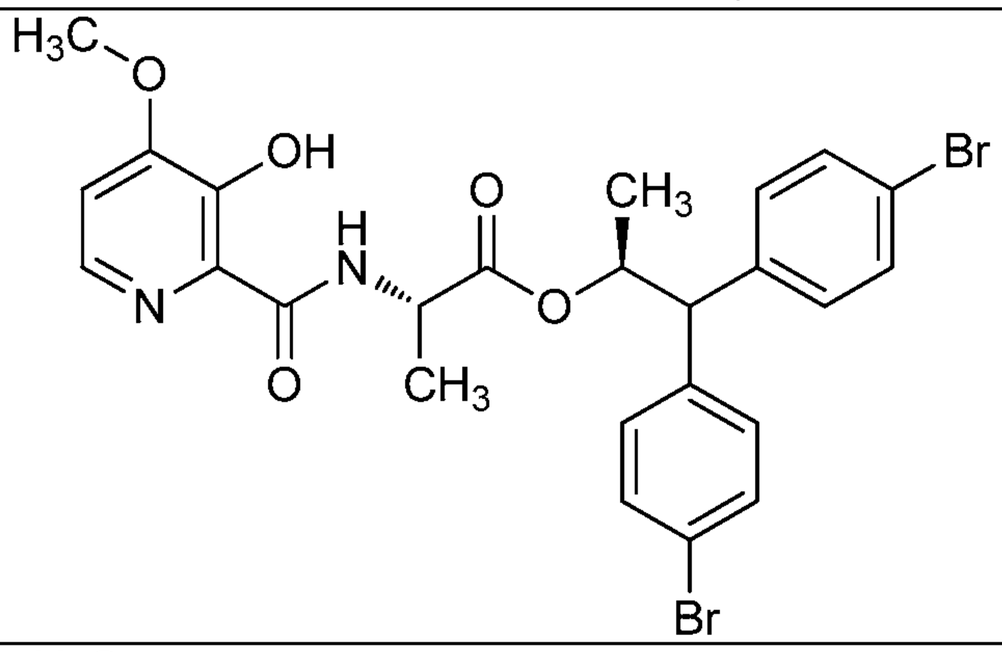
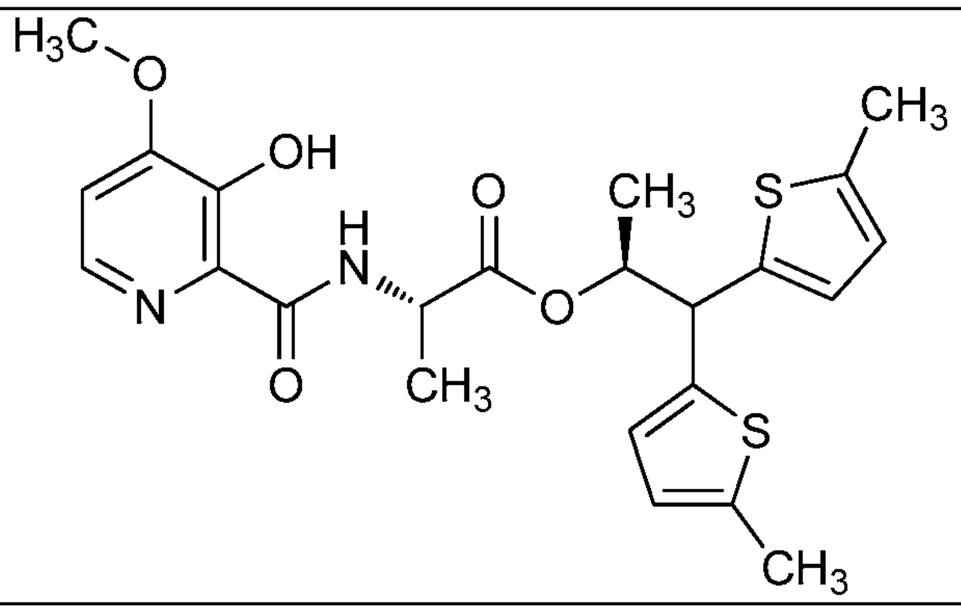
*Cmpd. No.	Structure	Prepared According To Example	Appearance
79		Example 5, Step 1	White Solid
80		Example 1; Example 3B; Example 4A; Example 5, Step 1	Sticky Oil
81		Example 5, Step 1	Sticky Oil
83		Example 5, Step 1	Colorless Oil

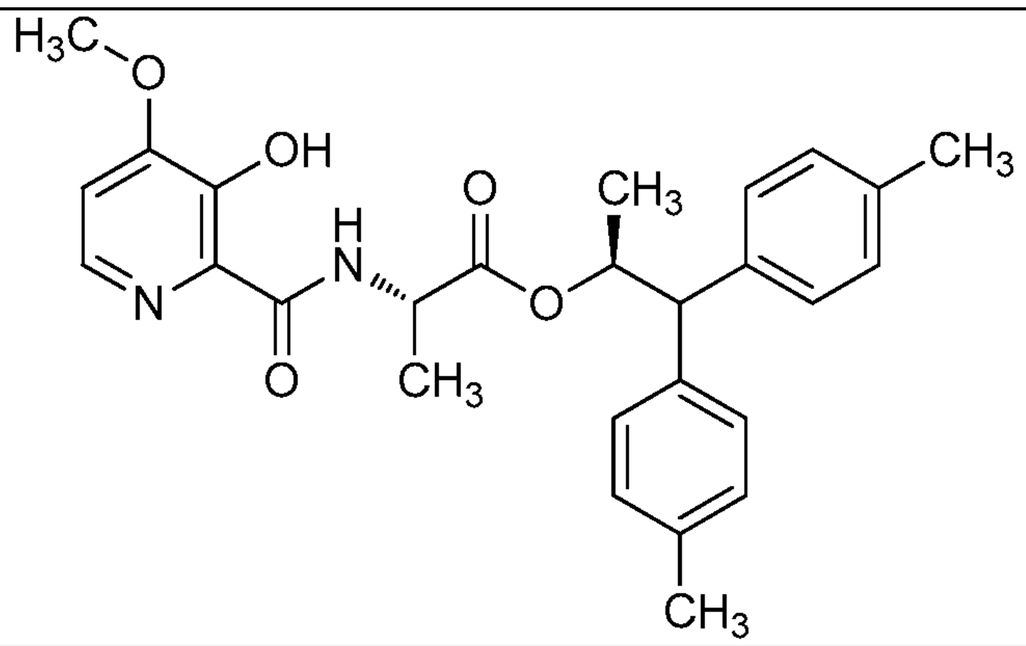
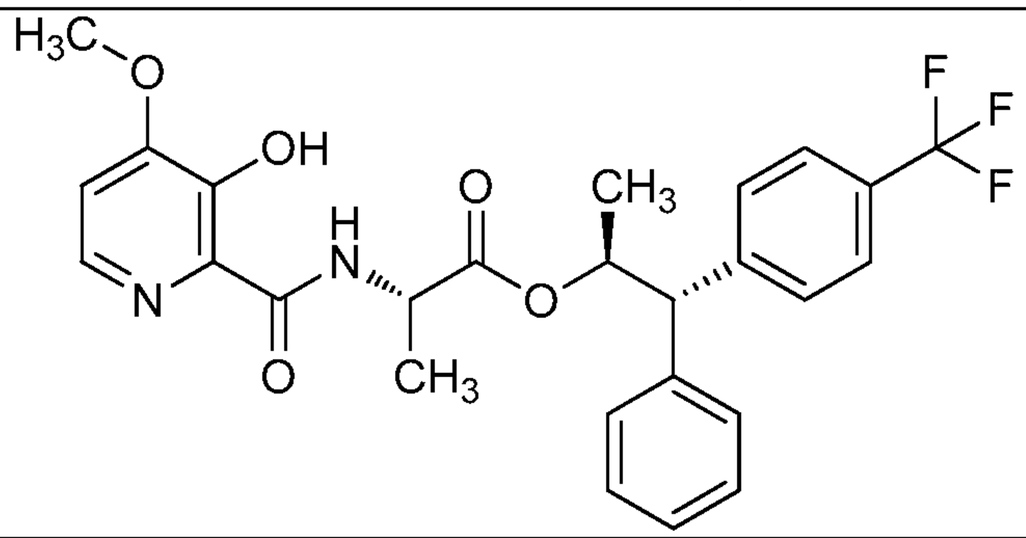
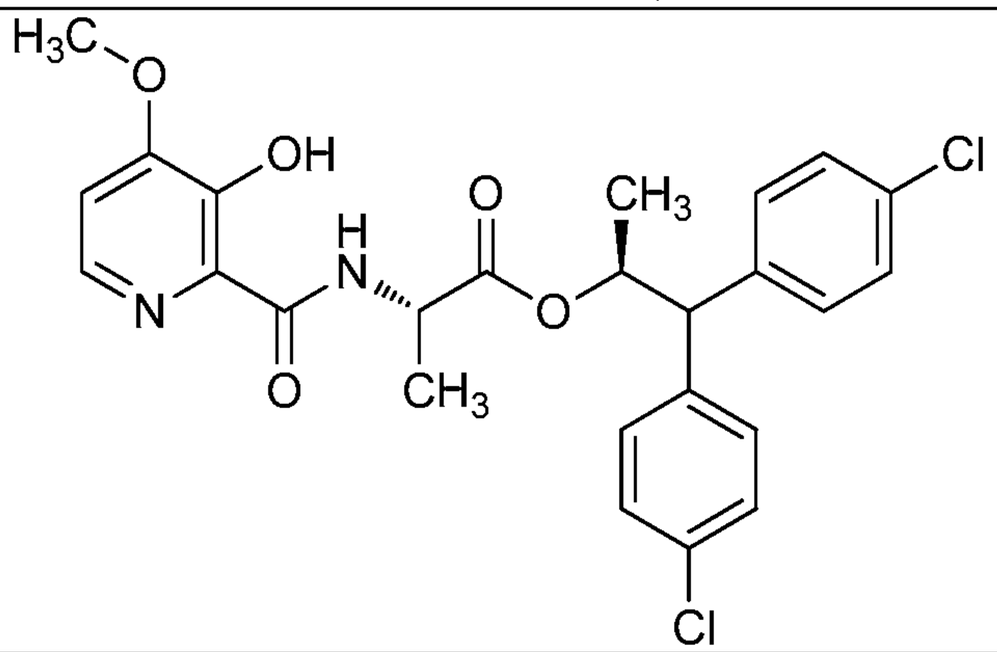
*Cmpd. No.	Structure	Prepared According To Example	Appearance
84		Example 5, Step 1	Clear, Colorless Oil
85		Example 5, Step 1	Clear, Colorless Oil
86		Example 5, Step 1	White Solid
87		Example 5, Step 1	White Solid

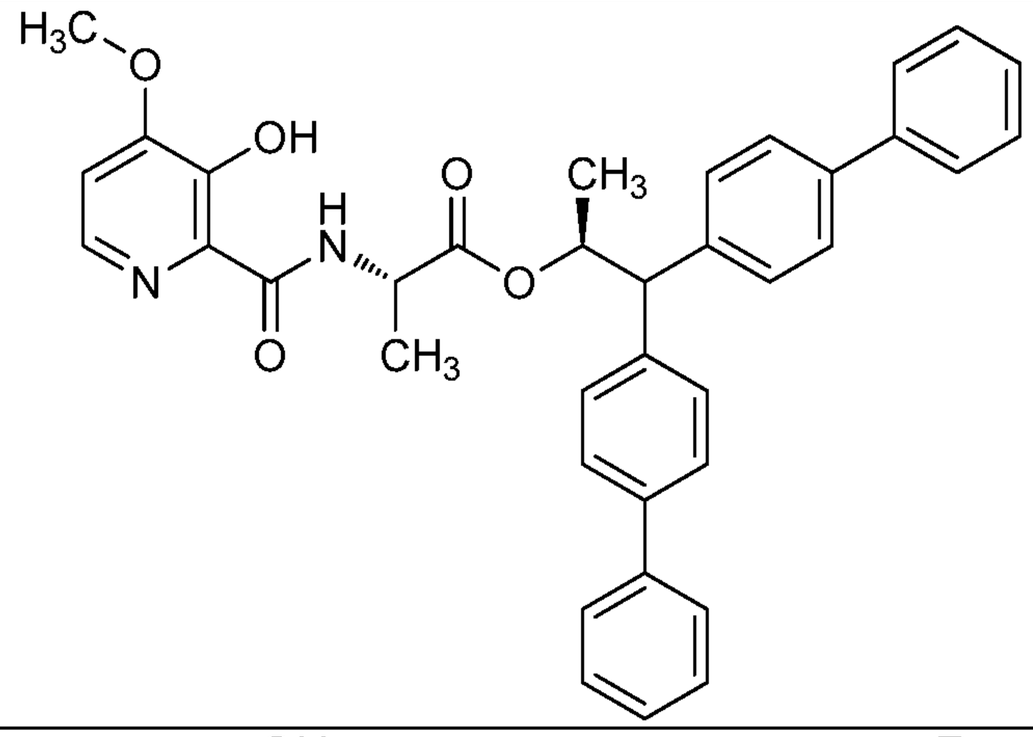
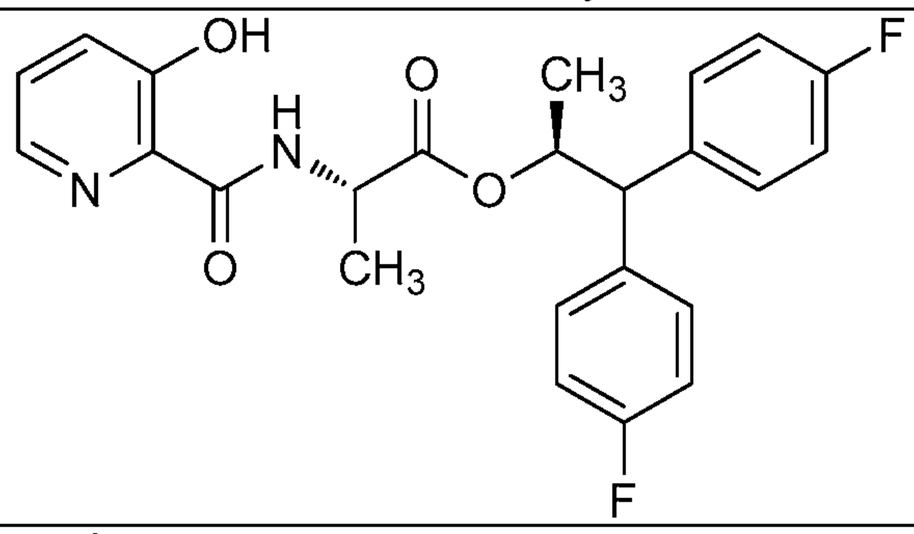
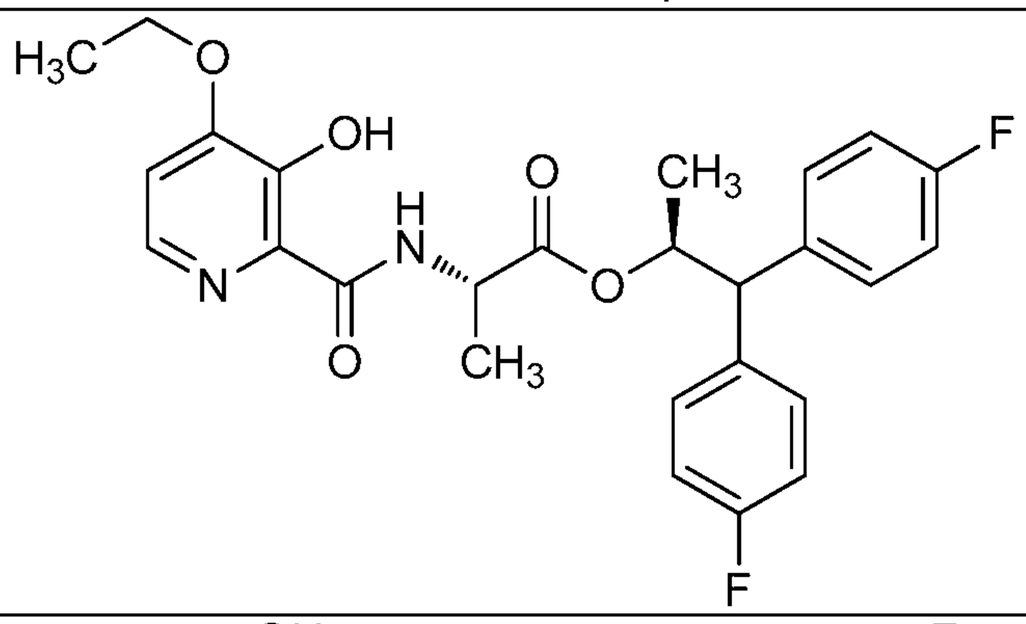
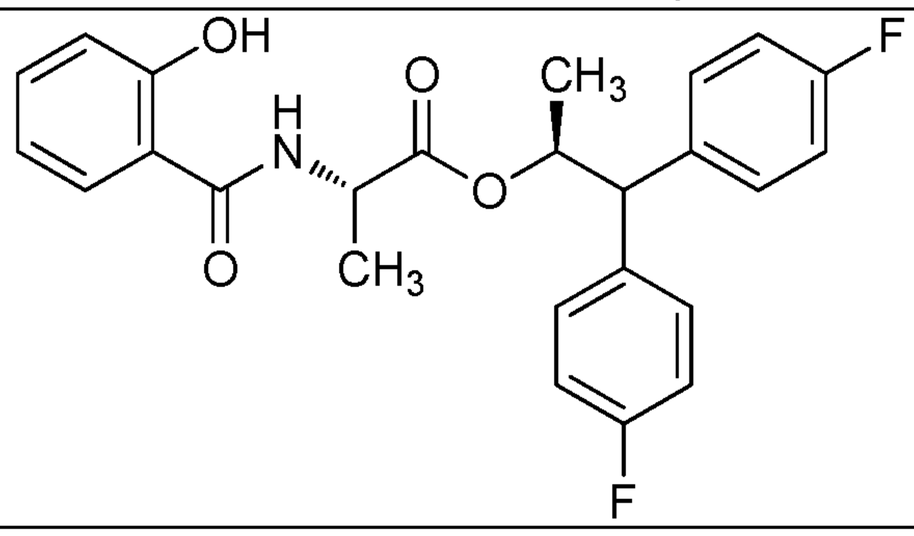
*Cmpd. No.	Structure	Prepared According To Example	Appearance
88		Example 5, Step 1	White Solid
89		Example 5, Step 2	White Solid
90		Example 5, Step 2	White Foam
91		Example 5, Step 2	Colorless Oil

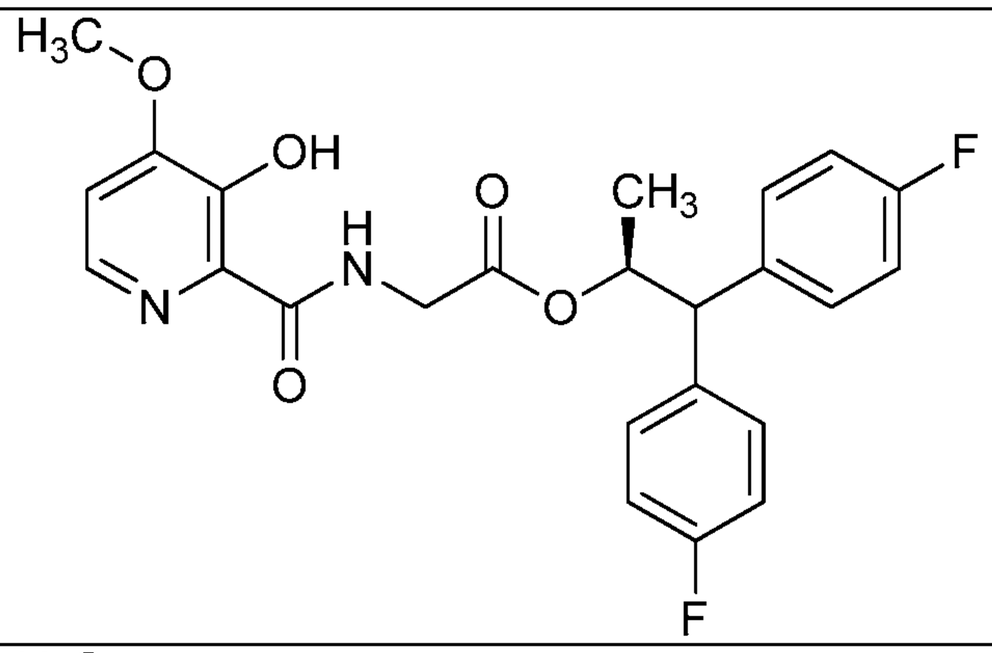
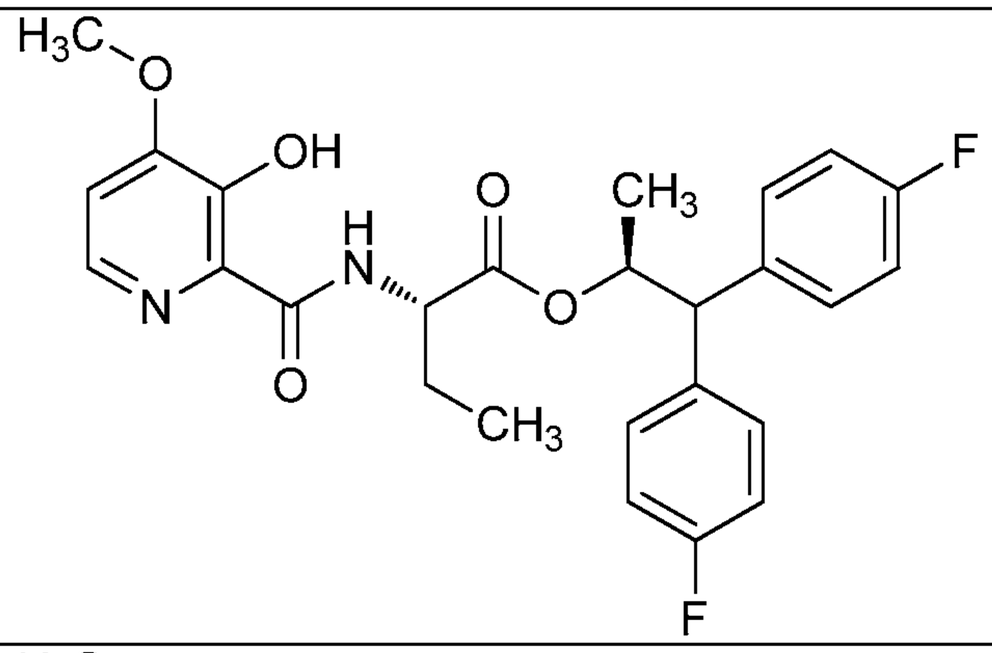
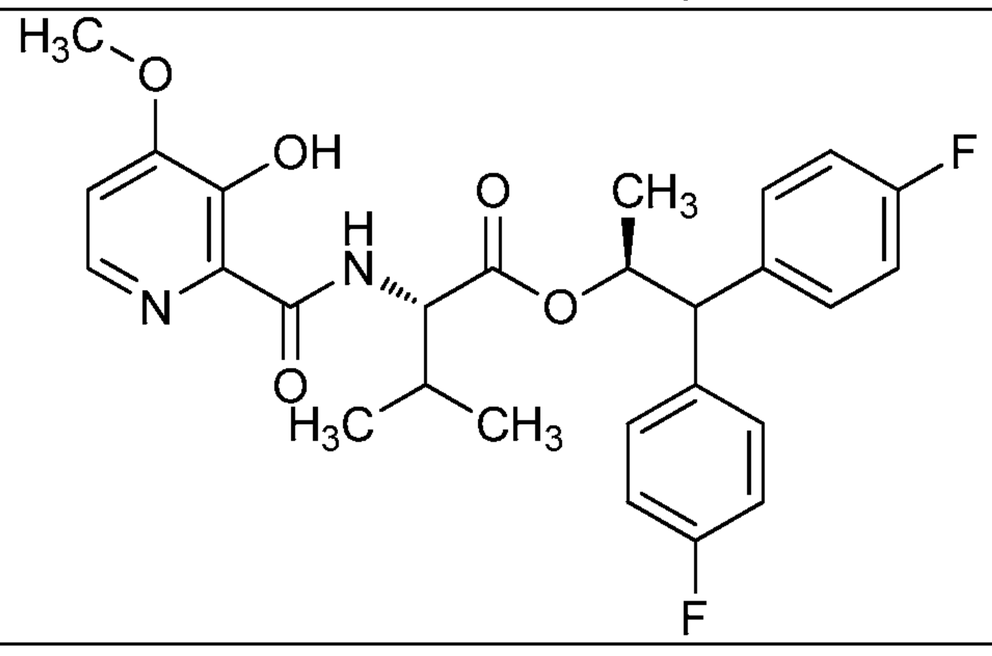
*Cmpd. No.	Structure	Prepared According To Example	Appearance
92		Example 5, Step 2	White Foam
93		Example 5, Step 2	White Foam
95		Example 5, Step 2	Colorless Oil
96		Example 5, Step 2	White Foam

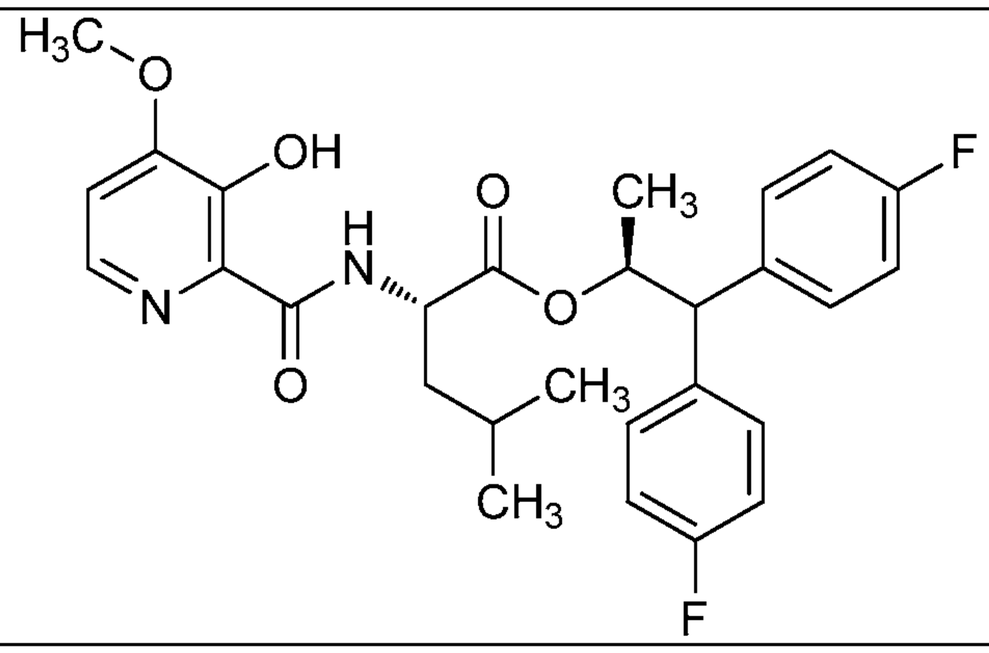
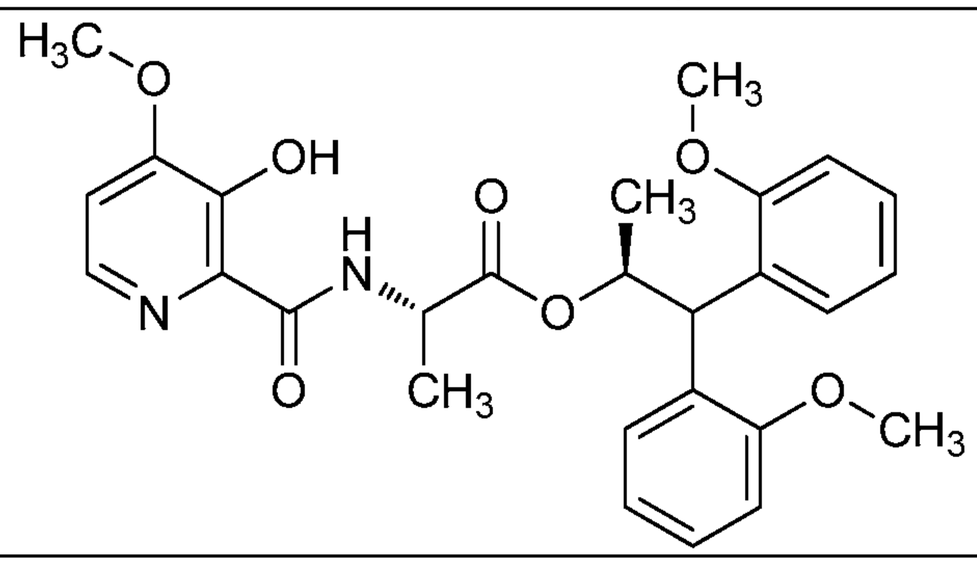
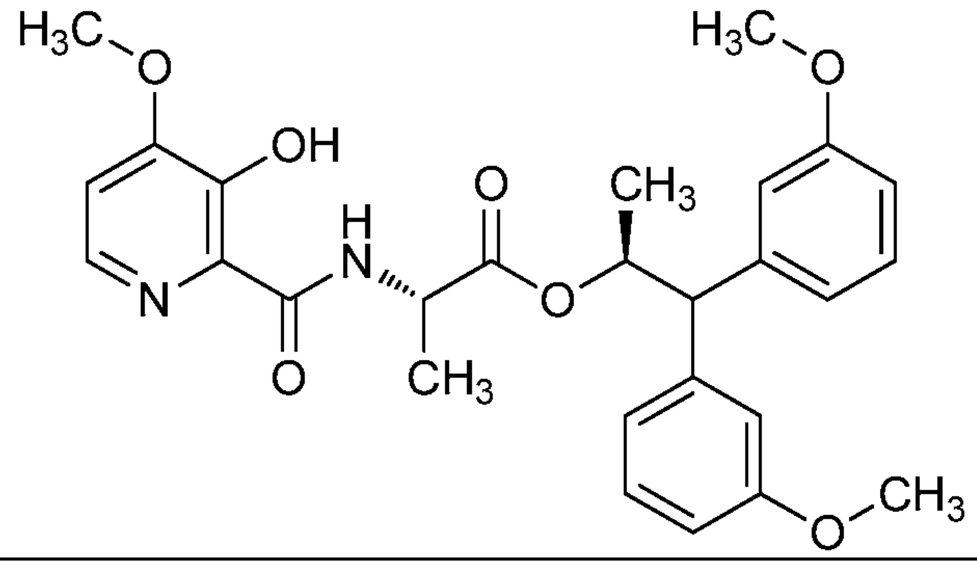
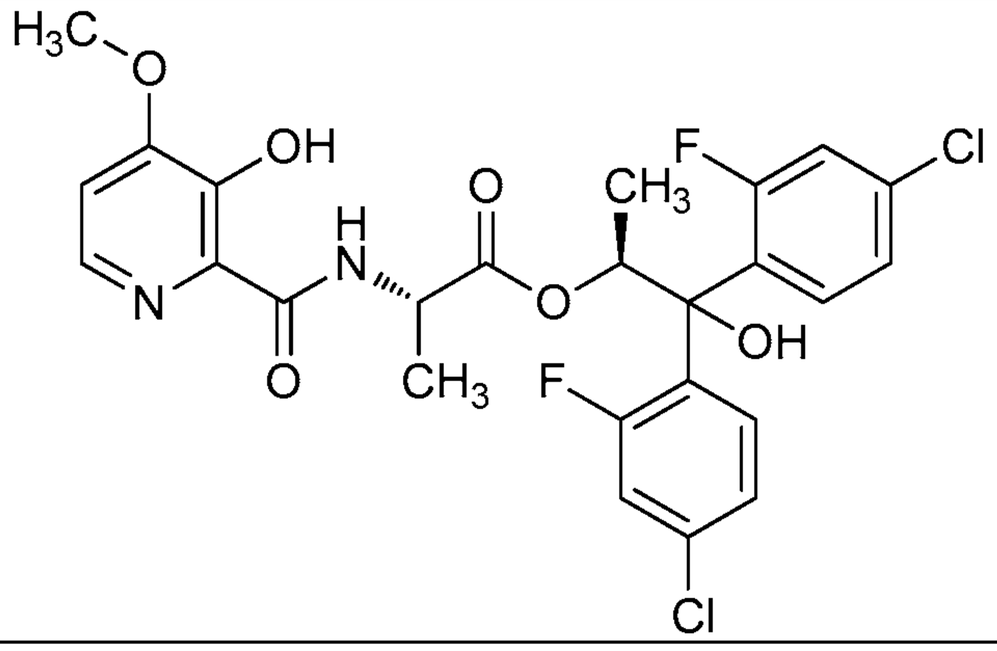
*Cmpd. No.	Structure	Prepared According To Example	Appearance
97		Example 5, Step 2	Colorless Oil
98		Example 5, Step 2	Colorless Oil
99		Example 5, Step 2	Colorless Oil
100		Example 5, Step 2	Colorless Oil

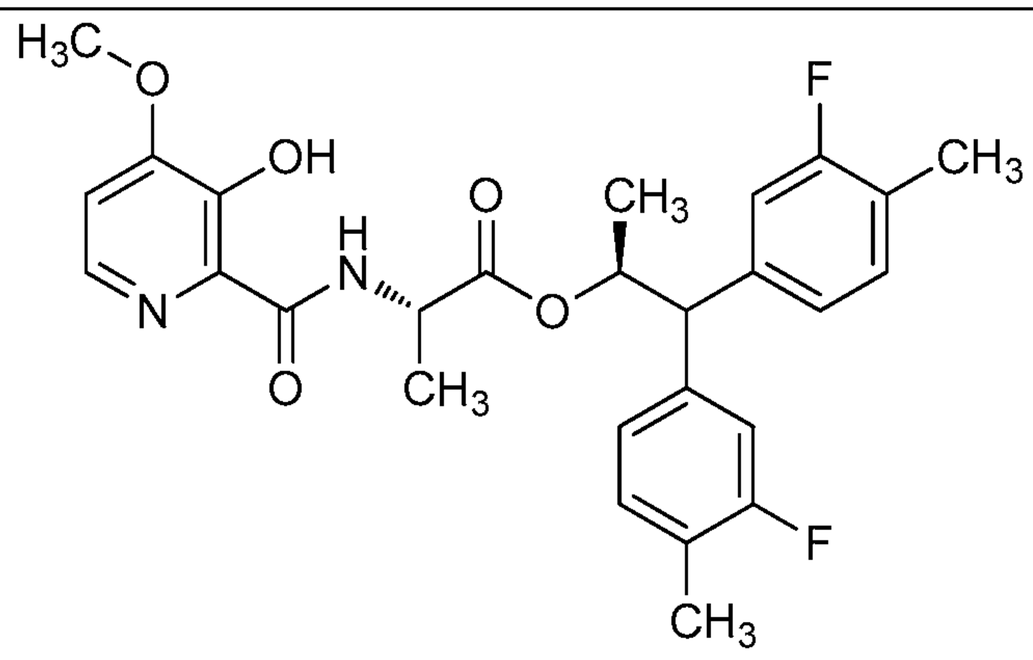
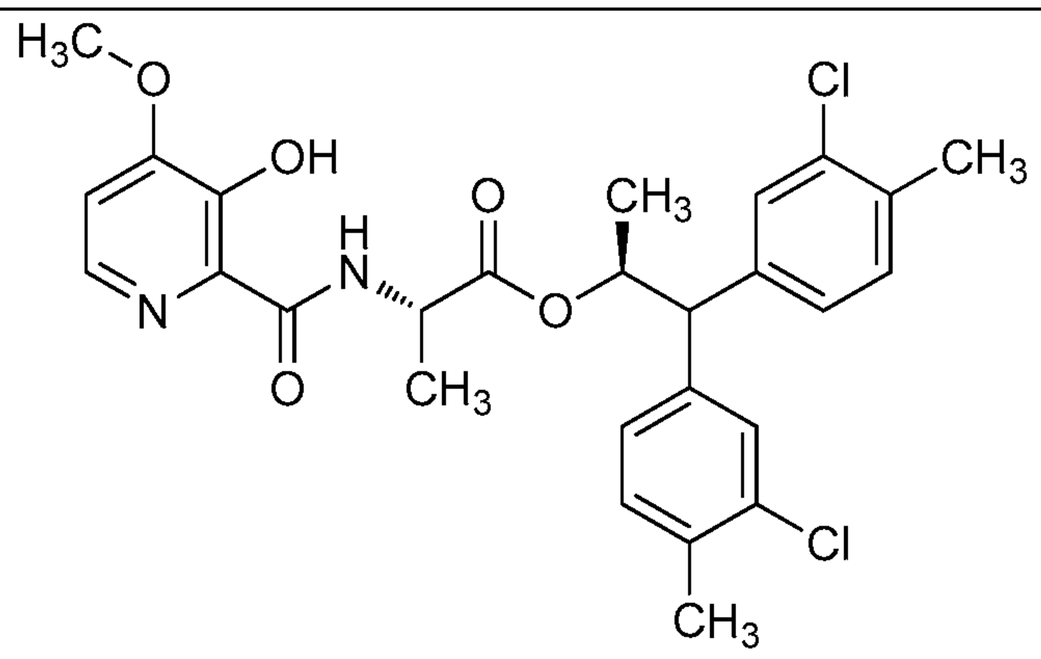
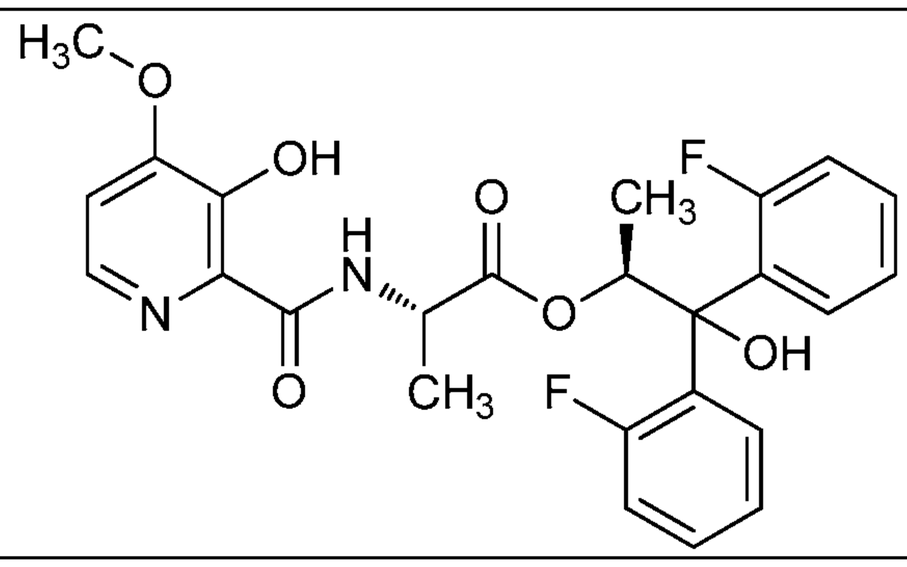
*Cmpd. No.	Structure	Prepared According To Example	Appearance
101		Example 5, Step 2	Colorless Oil
102		Example 5, Step 2	Colorless Oil
103		Example 5, Step 2	Colorless Oil
104		Example 5, Step 2	Colorless Oil

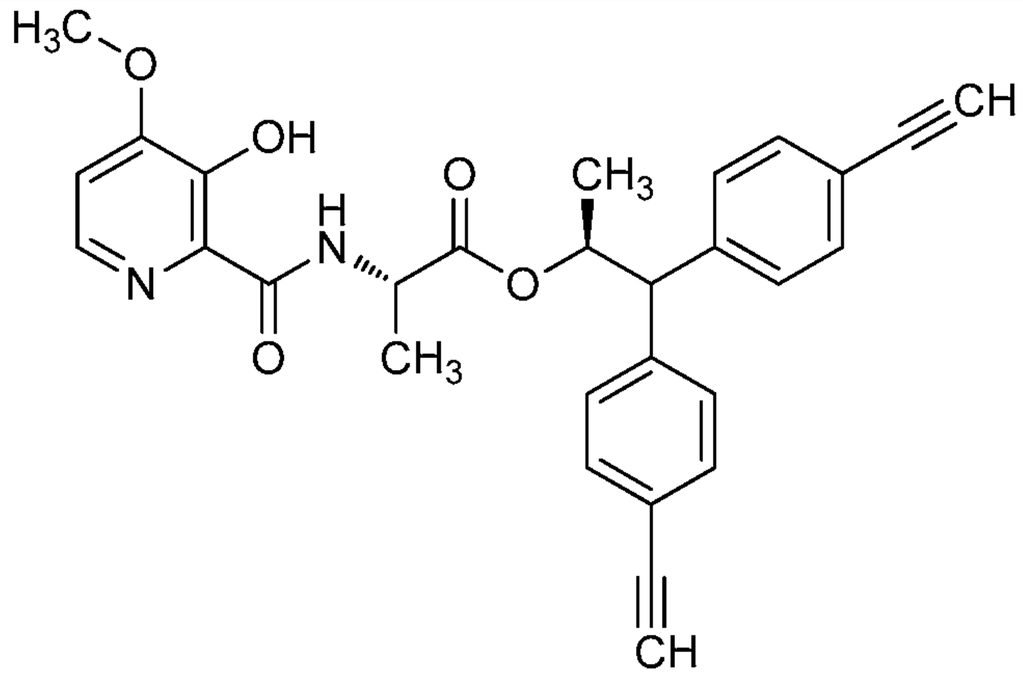
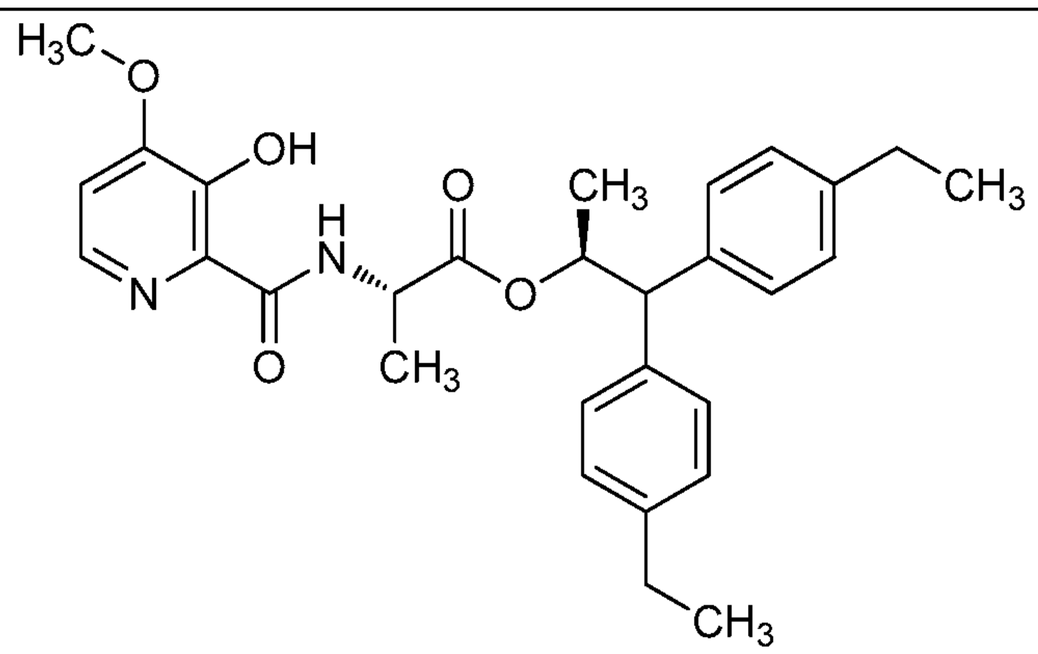
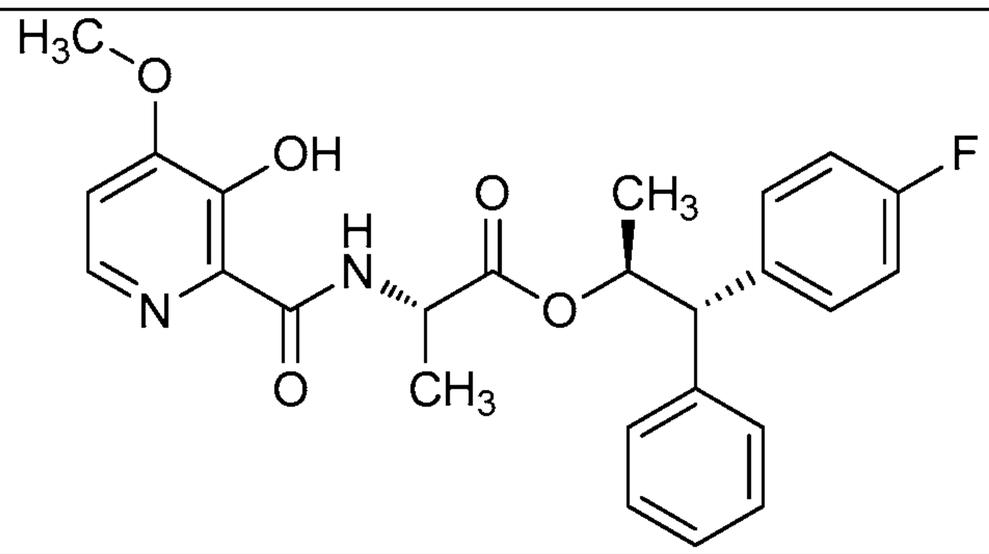
*Cmpd. No.	Structure	Prepared According To Example	Appearance
105		Example 5, Step 2	Colorless Oil
106		Example 5, Step 2	Colorless Gel
107		Example 5, Step 2	Colorless Gel

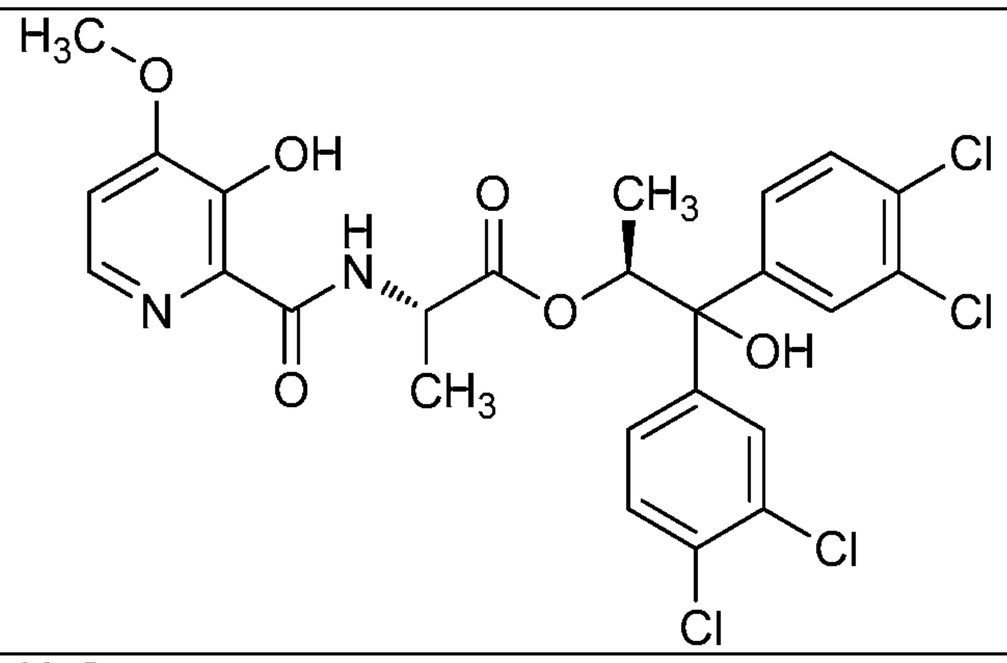
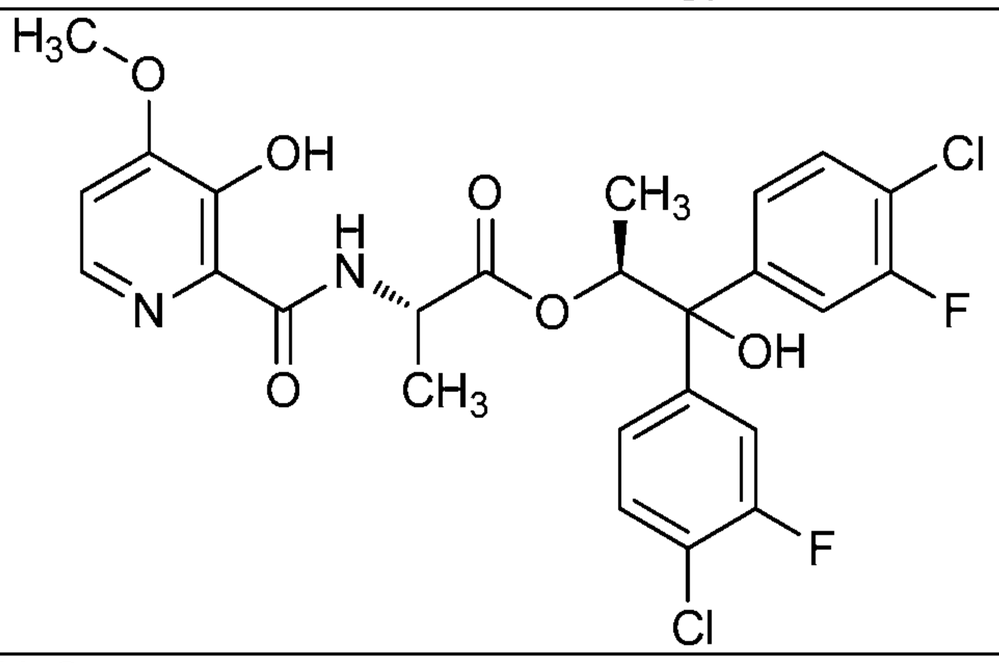
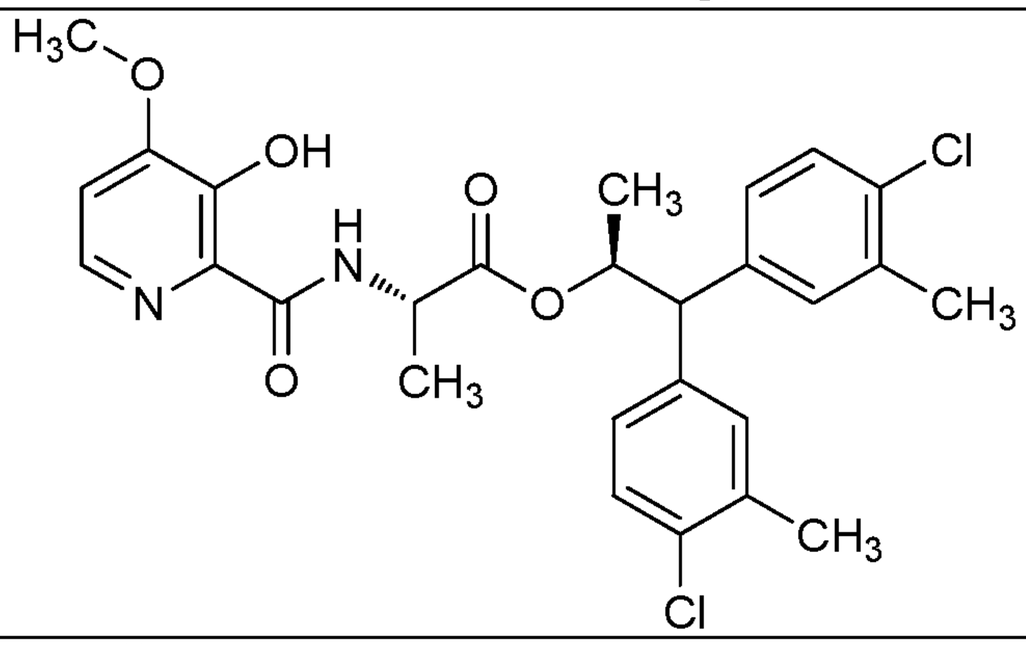
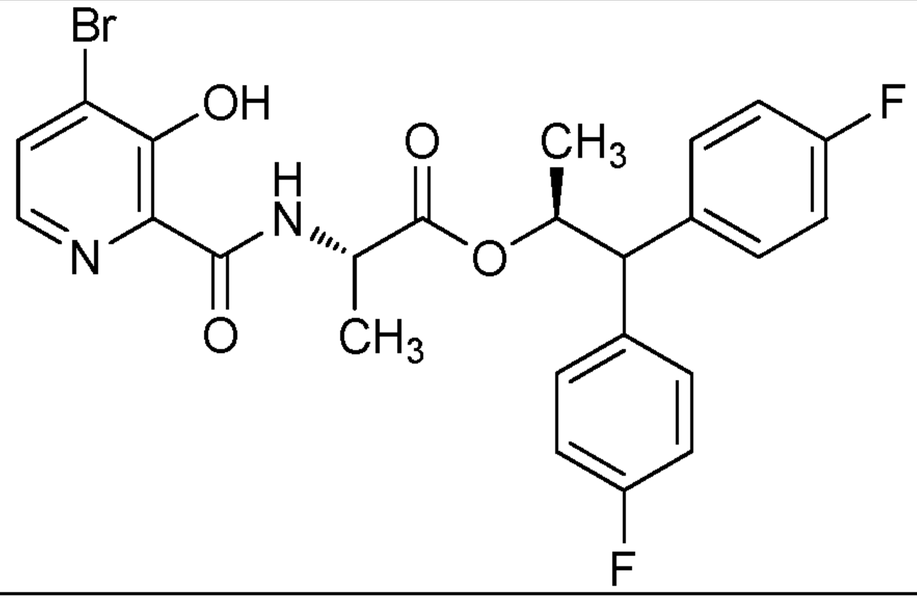
*Cmpd. No.	Structure	Prepared According To Example	Appearance
109		Example 5, Step 2	Colorless Oil
110		Example 5, Step 2	Clear, Colorless Oil
111		Example 5, Step 2	Clear, Colorless Oil
112		Example 5, Step 2	Clear, Colorless Oil

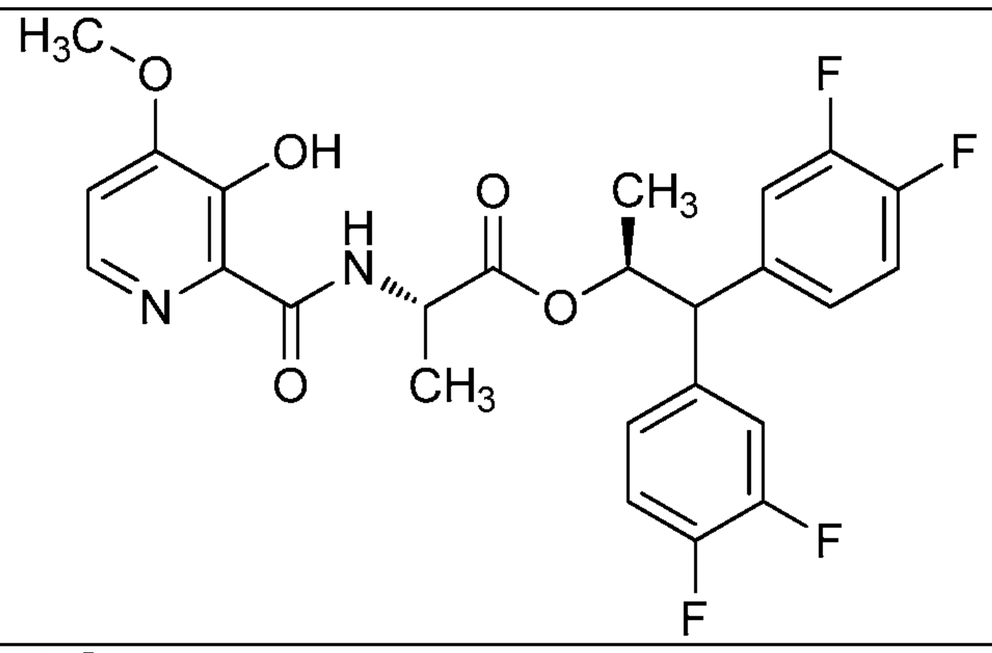
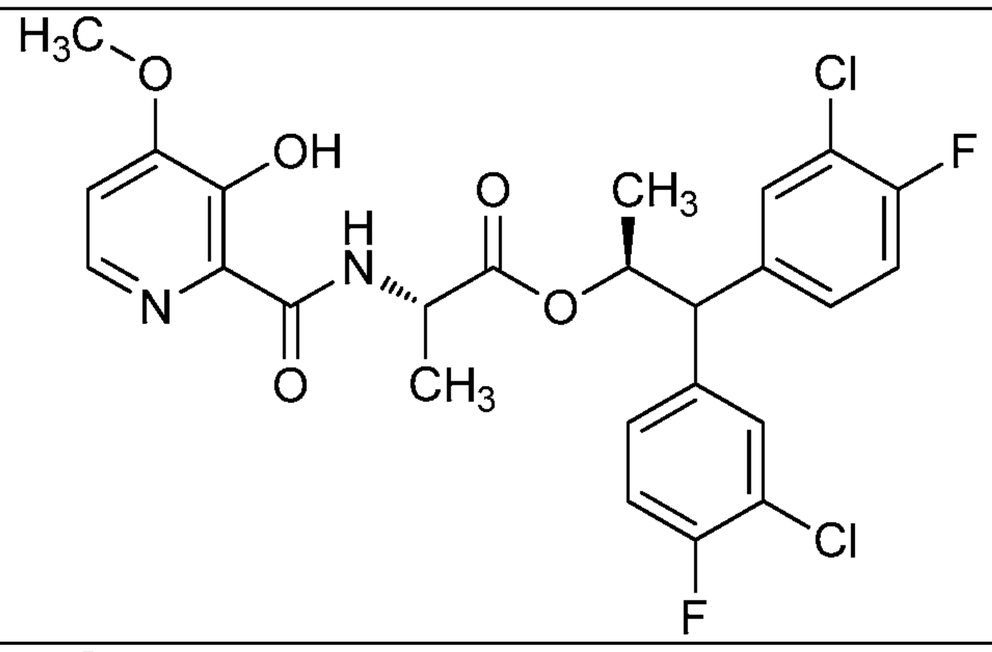
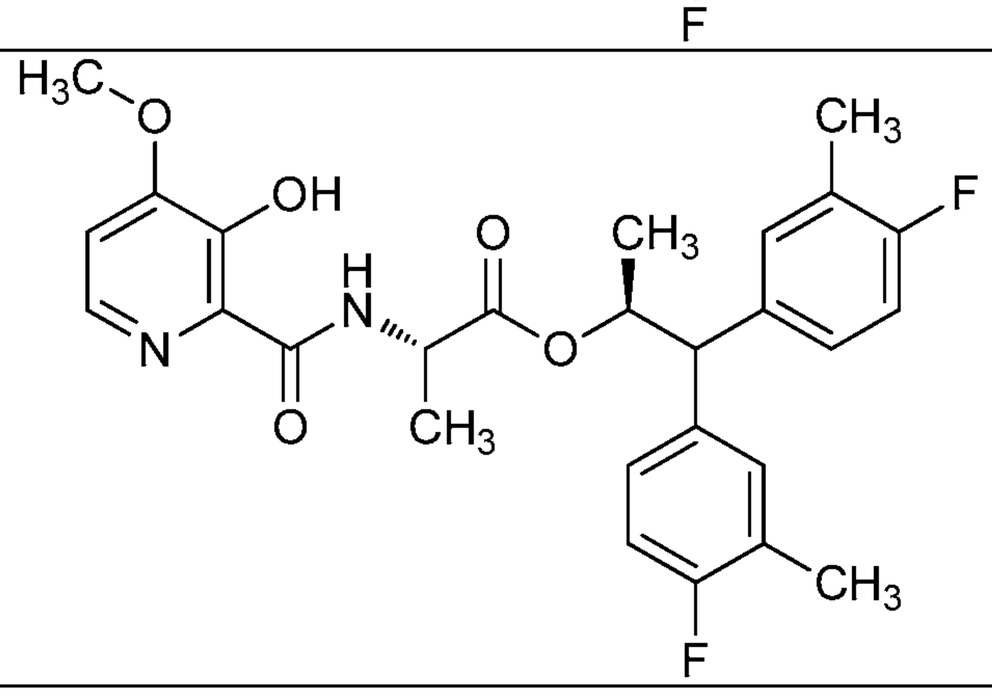
*Cmpd. No.	Structure	Prepared According To Example	Appearance
113		Example 5, Step 2	White Solid
114		Example 5, Step 2	White Solid
115		Example 5, Step 2	White Solid

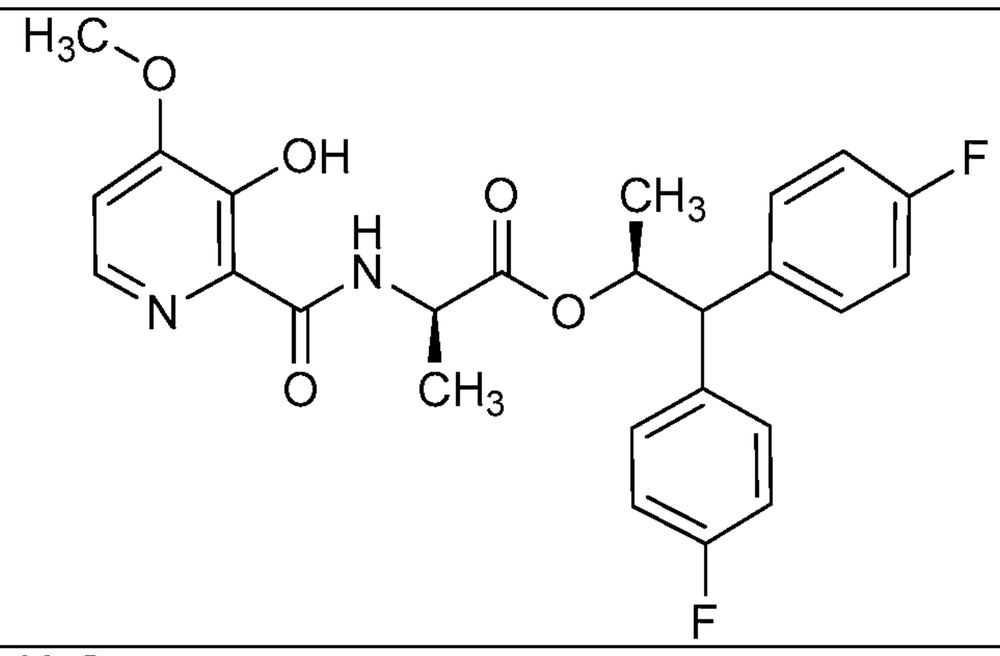
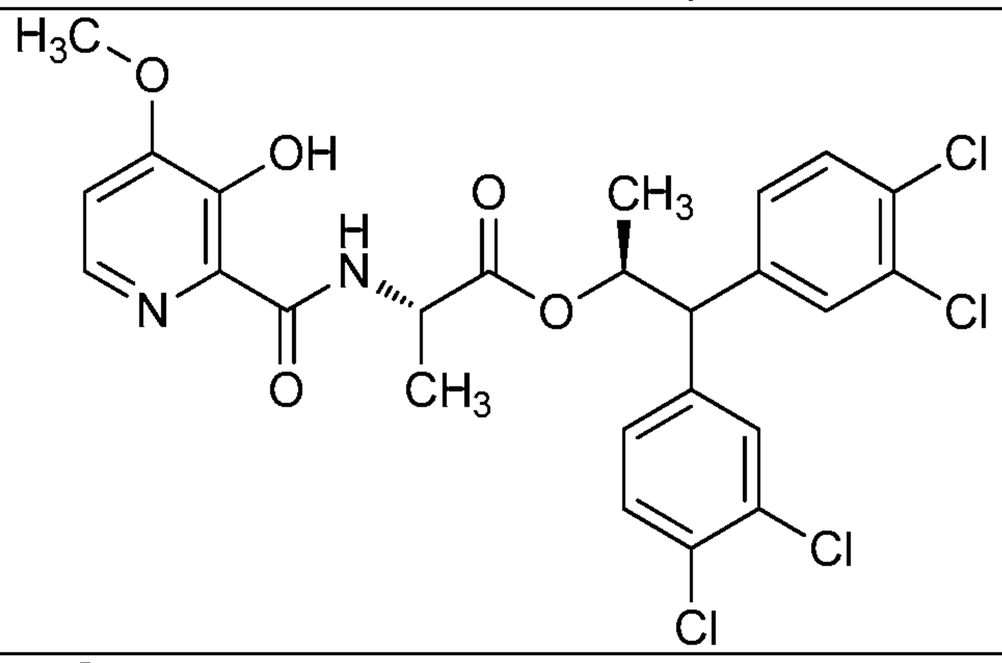
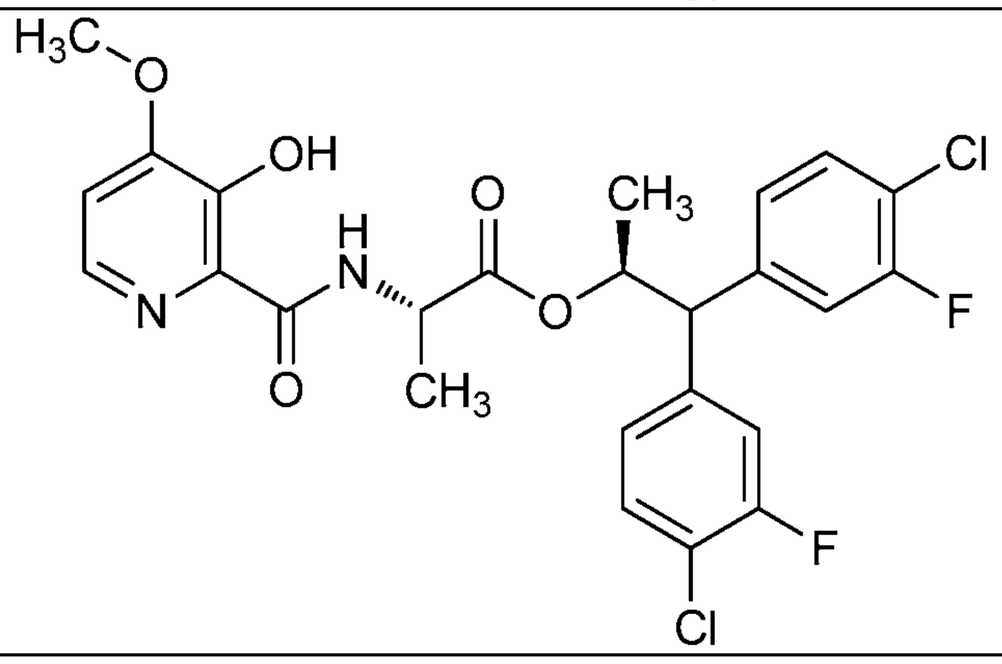
*Cmpd. No.	Structure	Prepared According To Example	Appearance
116		Example 5, Step 2	White Solid
117		Example 5, Step 2	White Foam
118		Example 5, Step 2	White Foam
119		Example 5, Step 2	White Foam

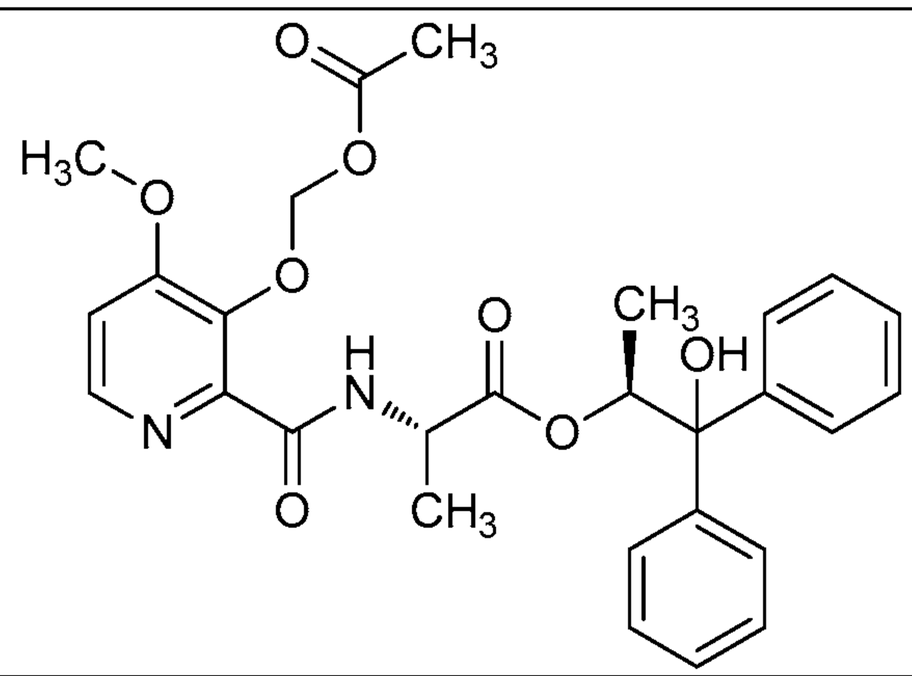
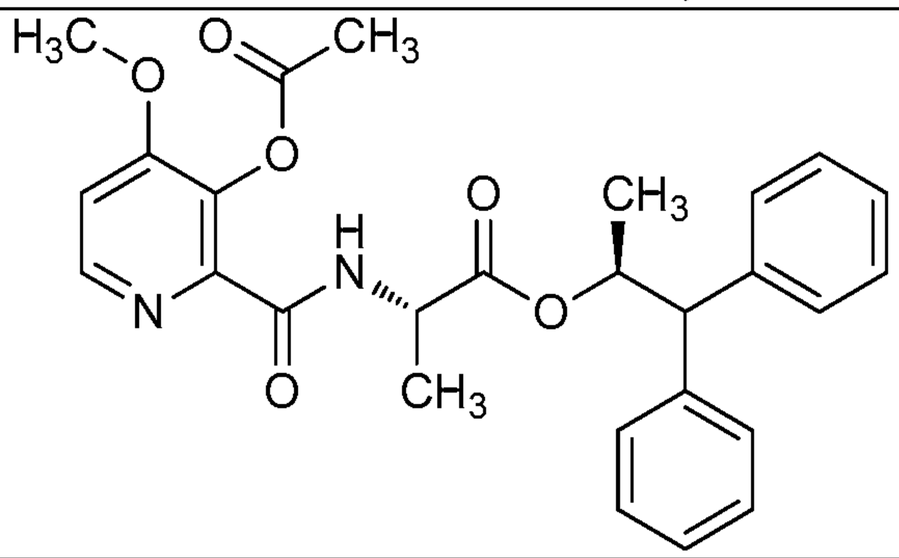
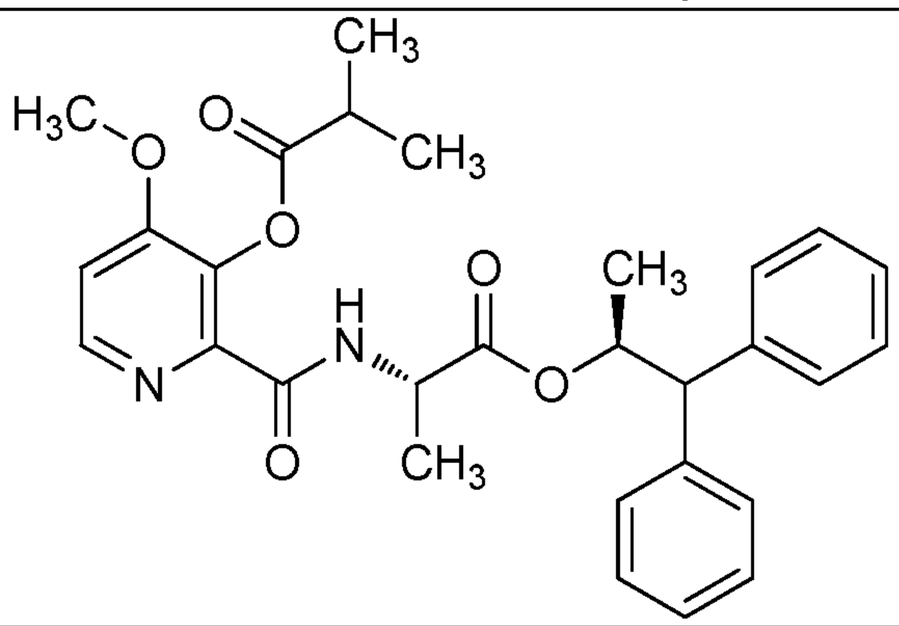
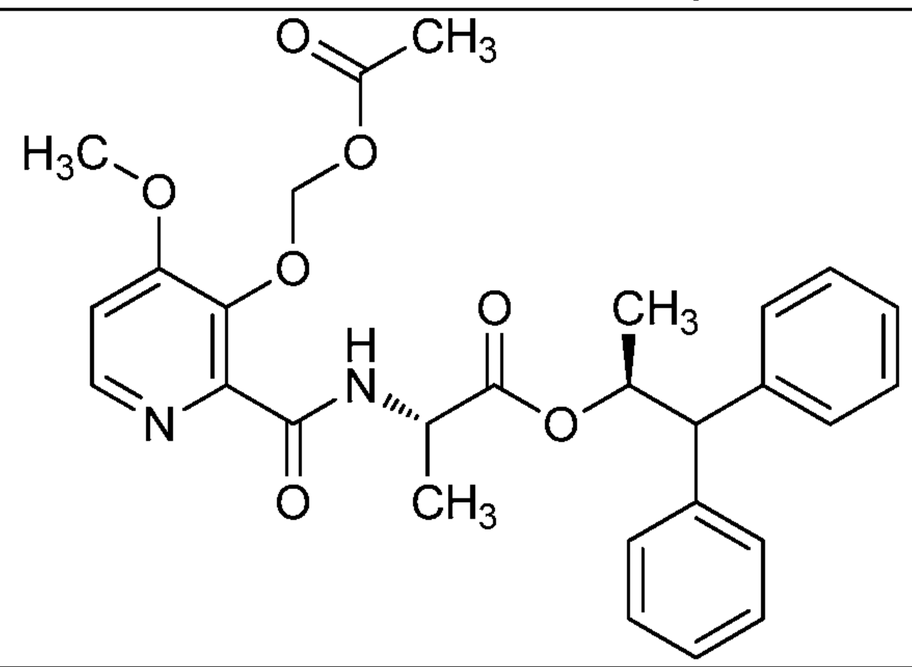
*Cmpd. No.	Structure	Prepared According To Example	Appearance
120		Example 5, Step 2	White Foam
121		Example 5, Step 2	White Foam
122		Example 5, Step 2	White Foam

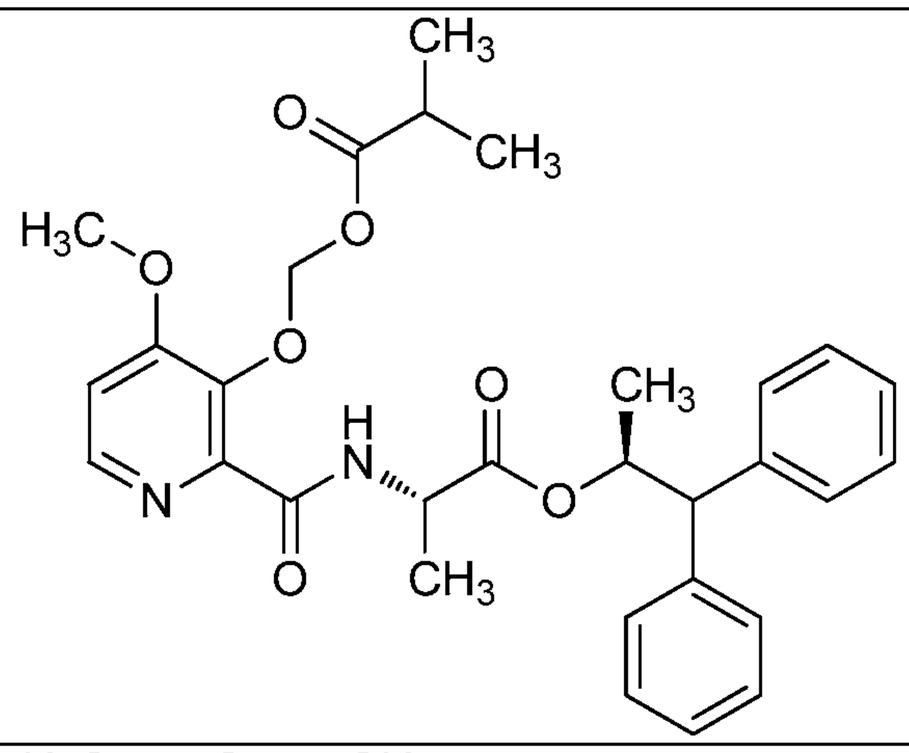
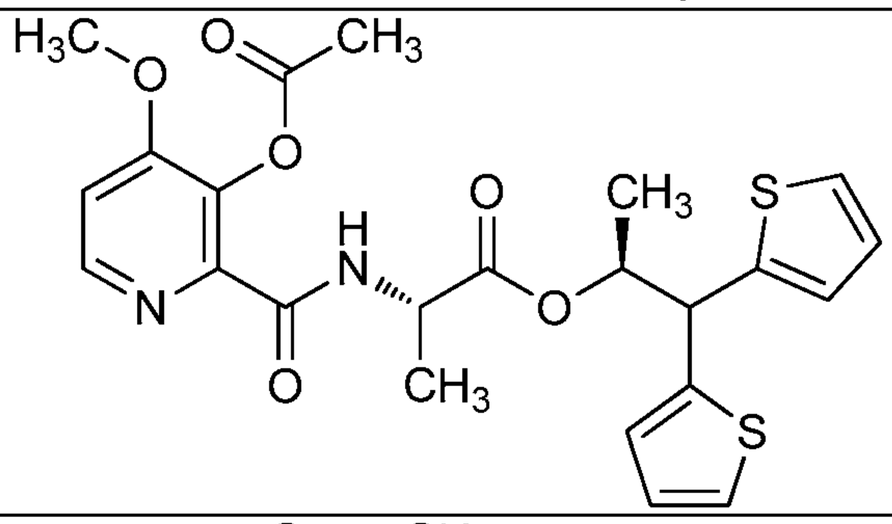
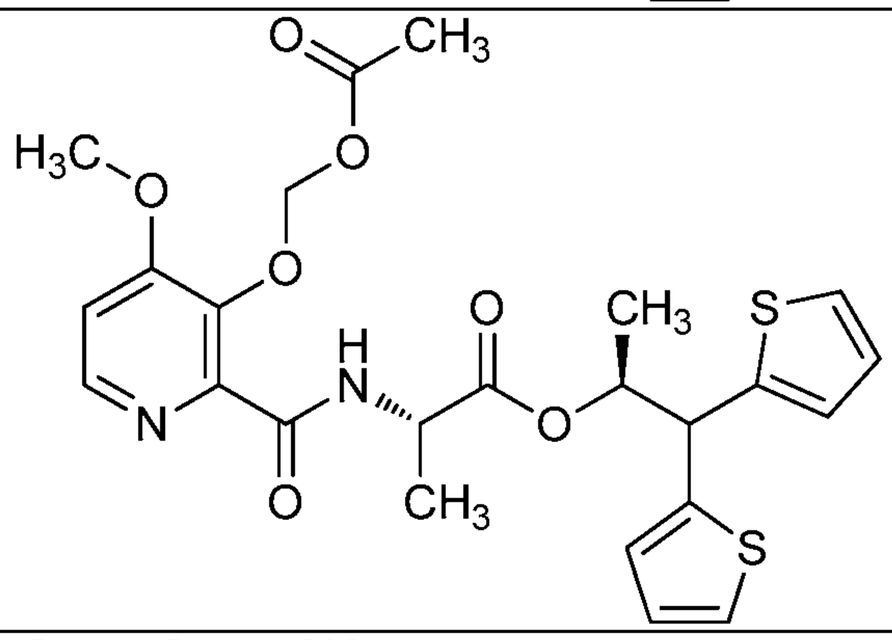
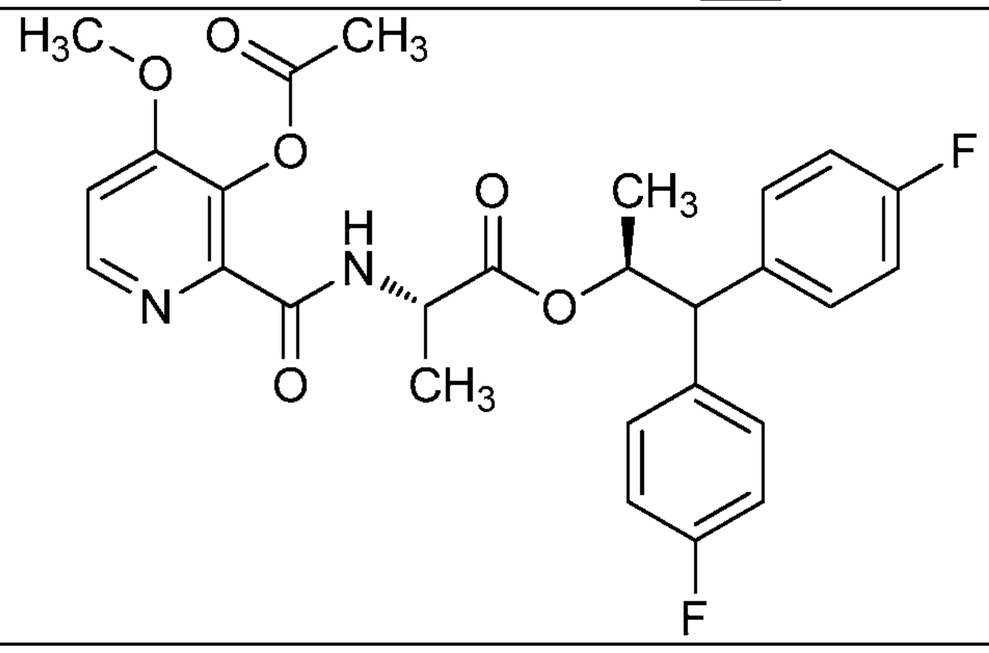
*Cmpd. No.	Structure	Prepared According To Example	Appearance
123		Example 5, Step 2	White Foam
124		Example 5, Step 2	White Foam
125		Example 5, Step 2	White Solid

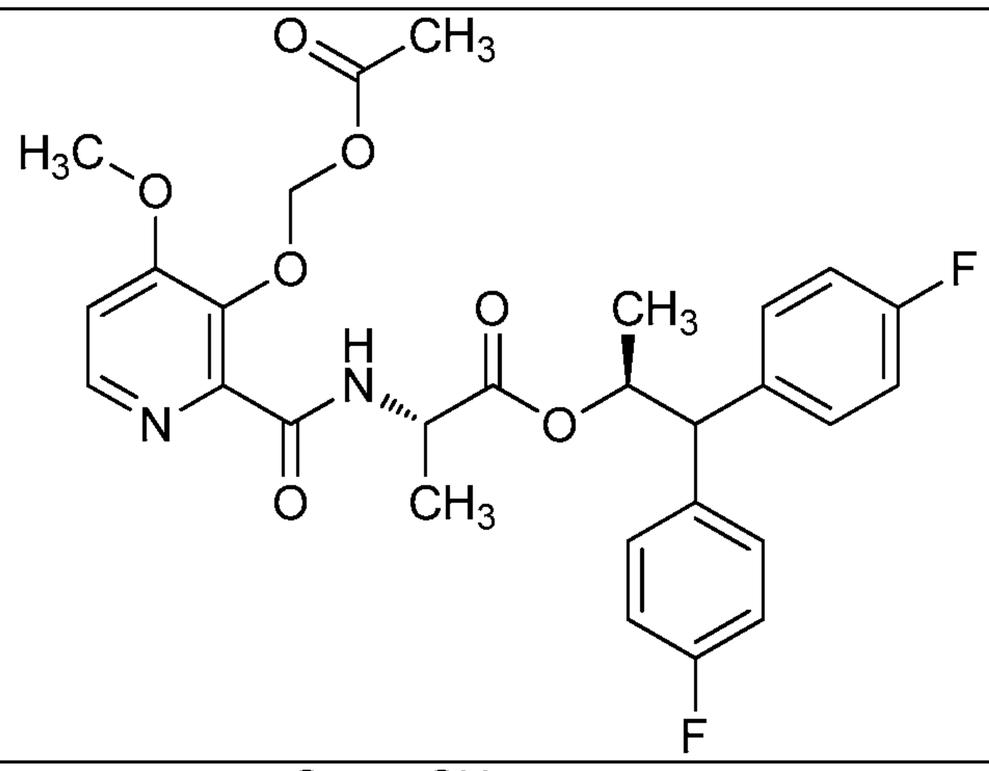
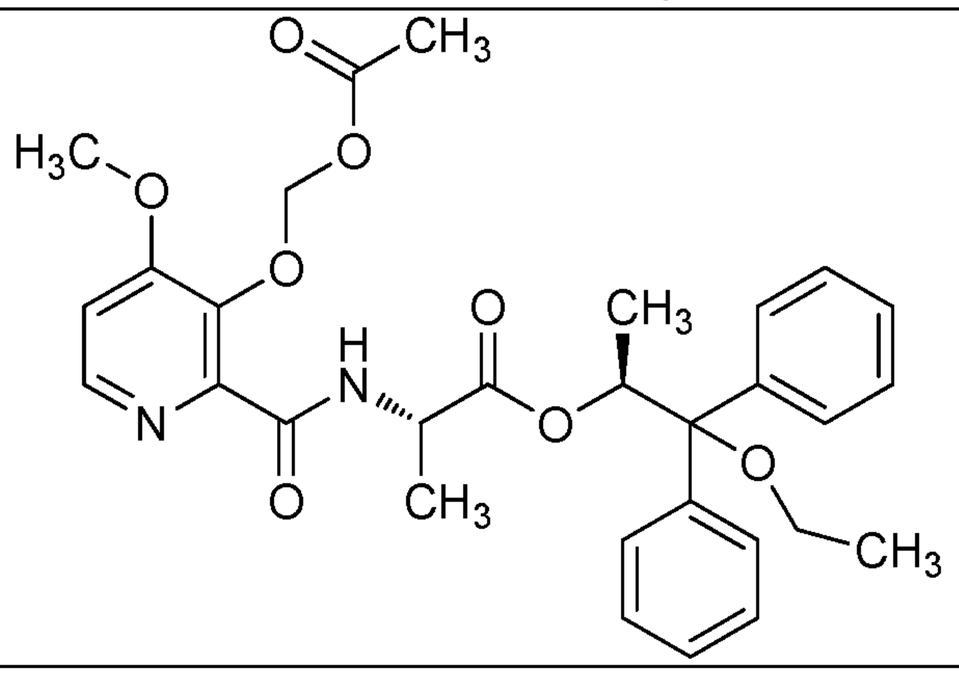
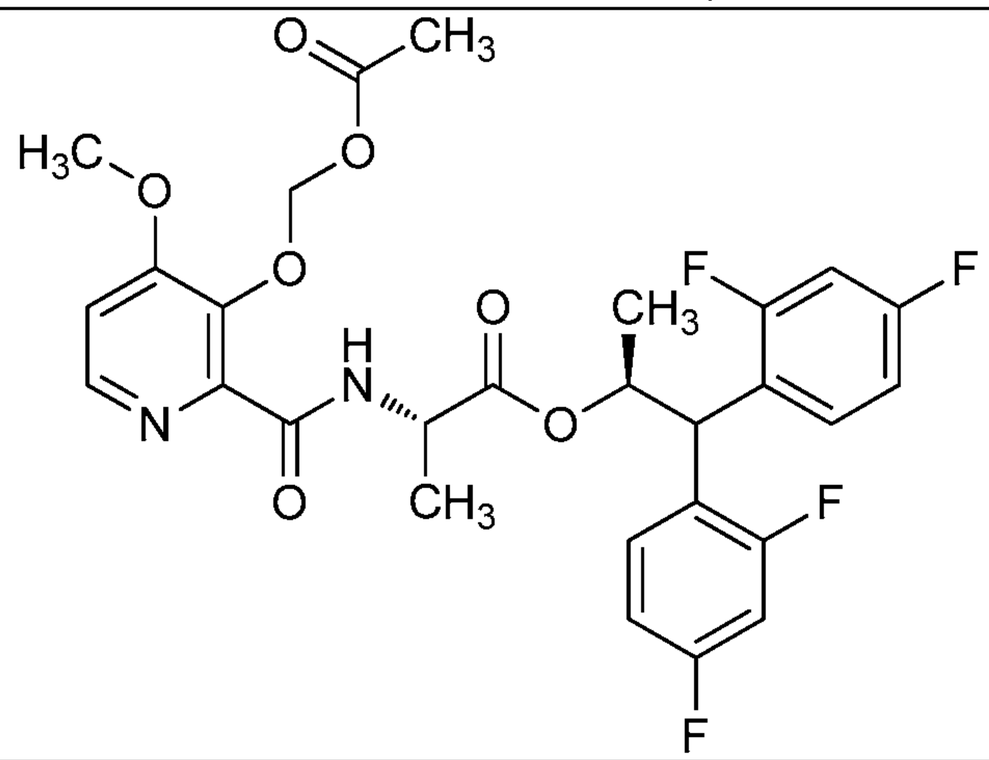
*Cmpd. No.	Structure	Prepared According To Example	Appearance
127		Example 5, Step 2	White Solid
128		Example 5, Step 2	White Solid
129		Example 5, Step 2	White Solid
130		Example 5, Step 2	Clear, Colorless Oil

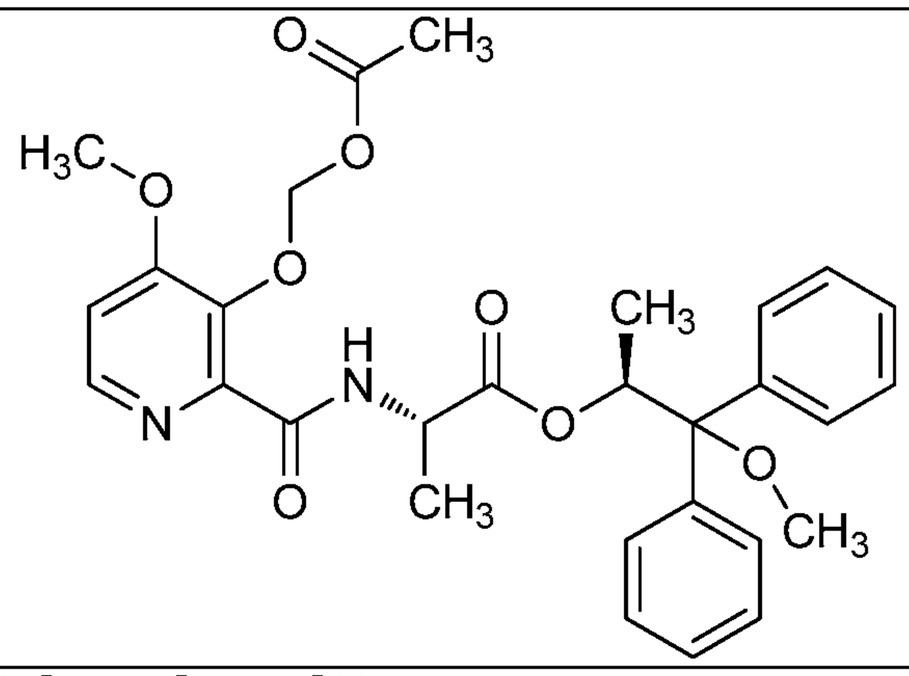
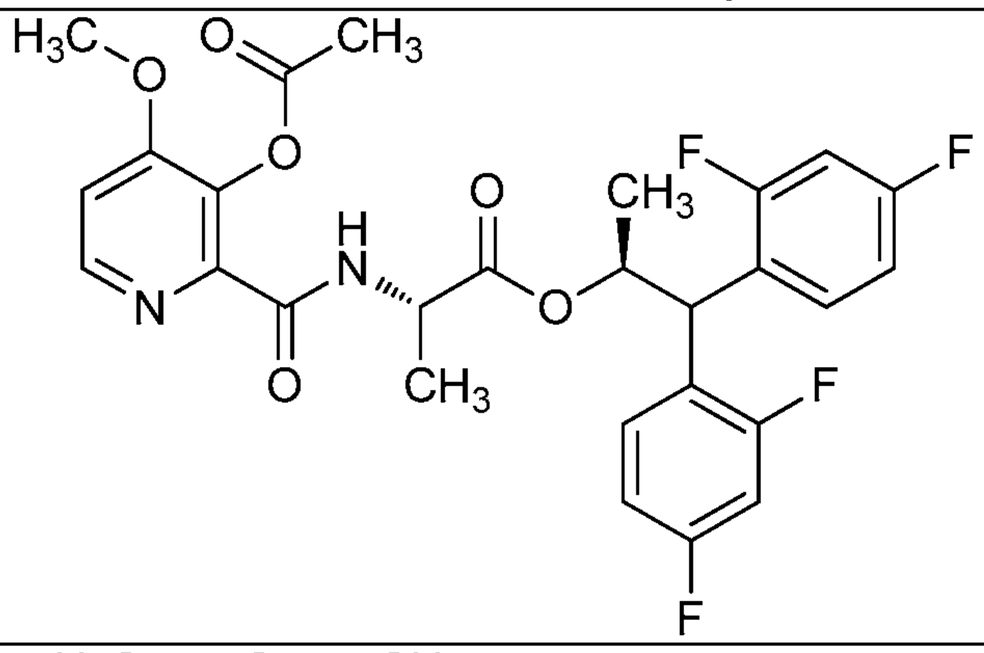
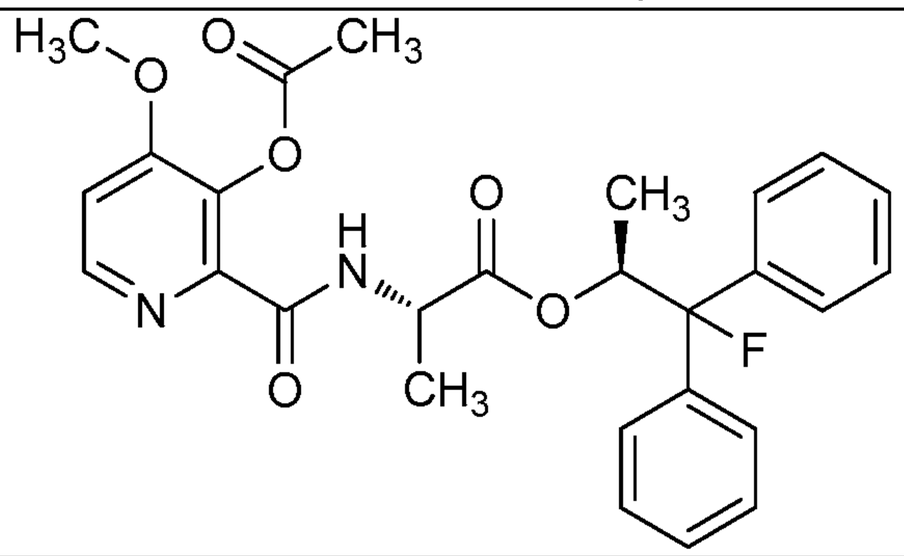
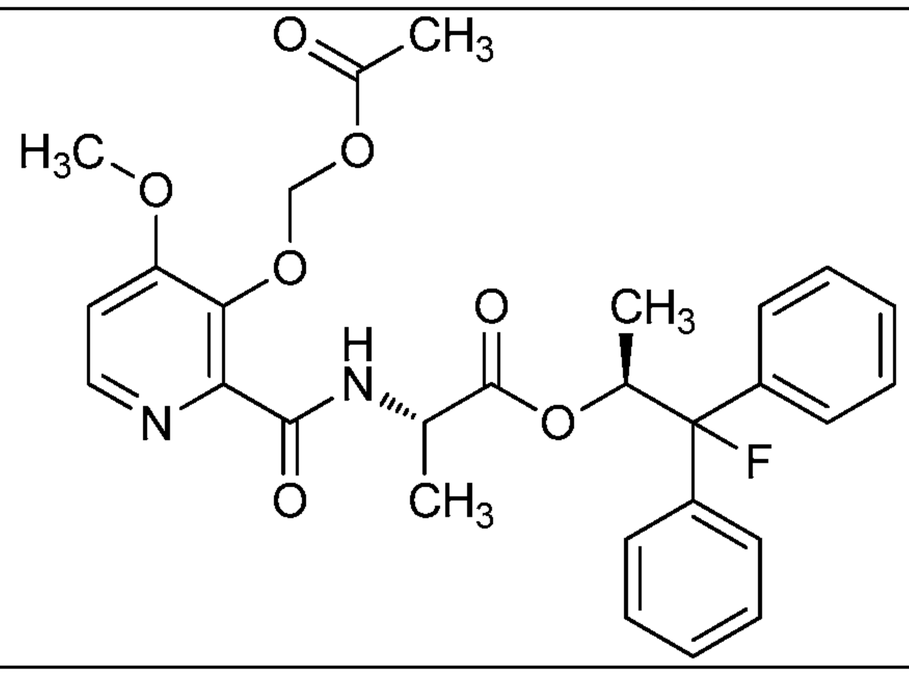
*Cmpd. No.	Structure	Prepared According To Example	Appearance
131		Example 5, Step 2	Clear, Colorless Oil
132		Example 5, Step 2	Colorless Foam
133		Example 5, Step 2	Colorless Foam

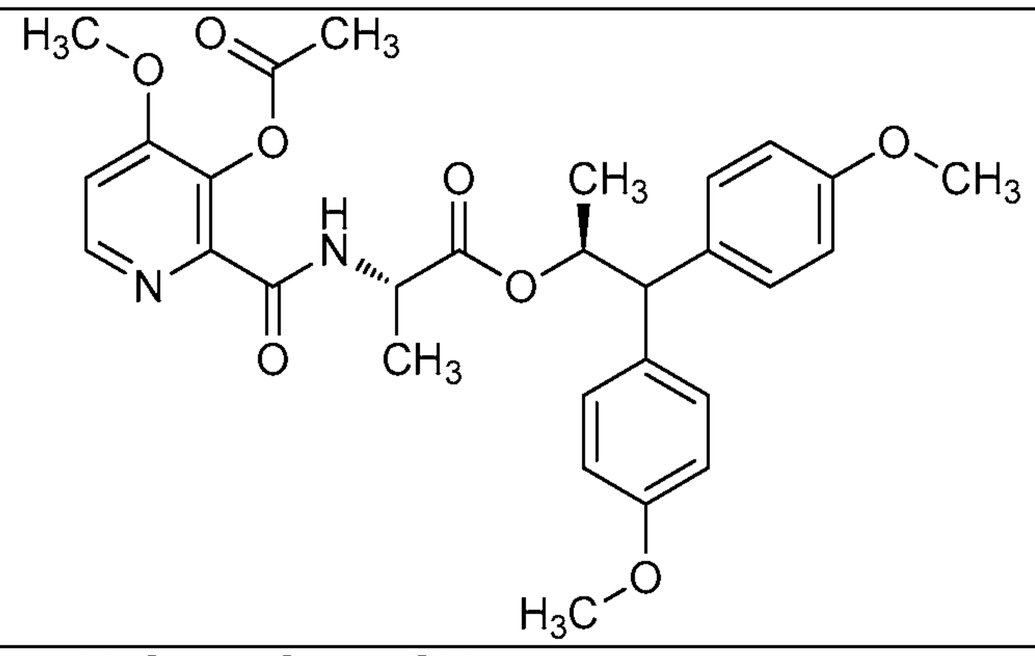
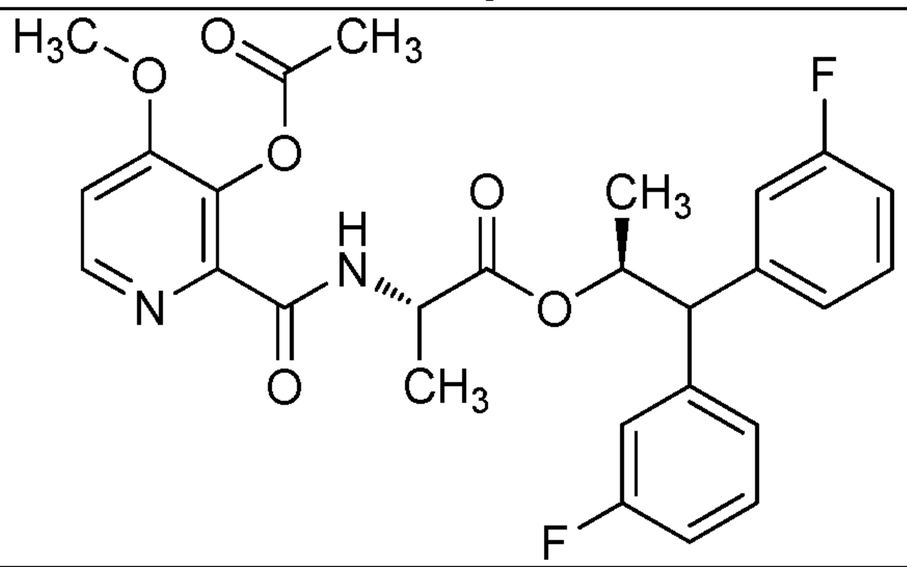
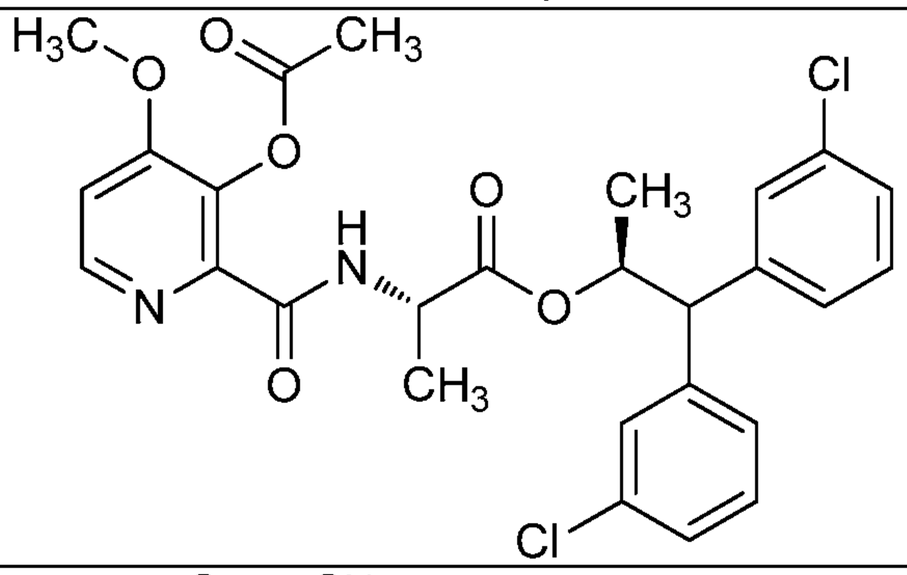
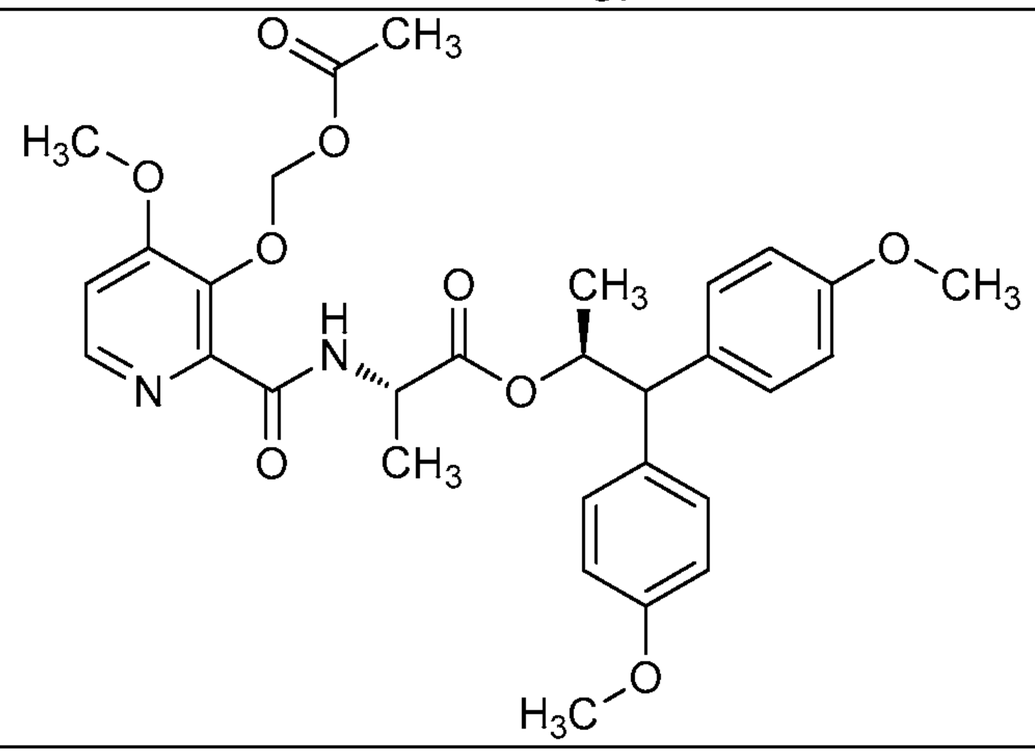
*Cmpd. No.	Structure	Prepared According To Example	Appearance
135		Example 5, Step 2	Colorless Tacky Semi-Solid
136		Example 5, Step 2	White Foam
137		Example 5, Step 2	White Foam

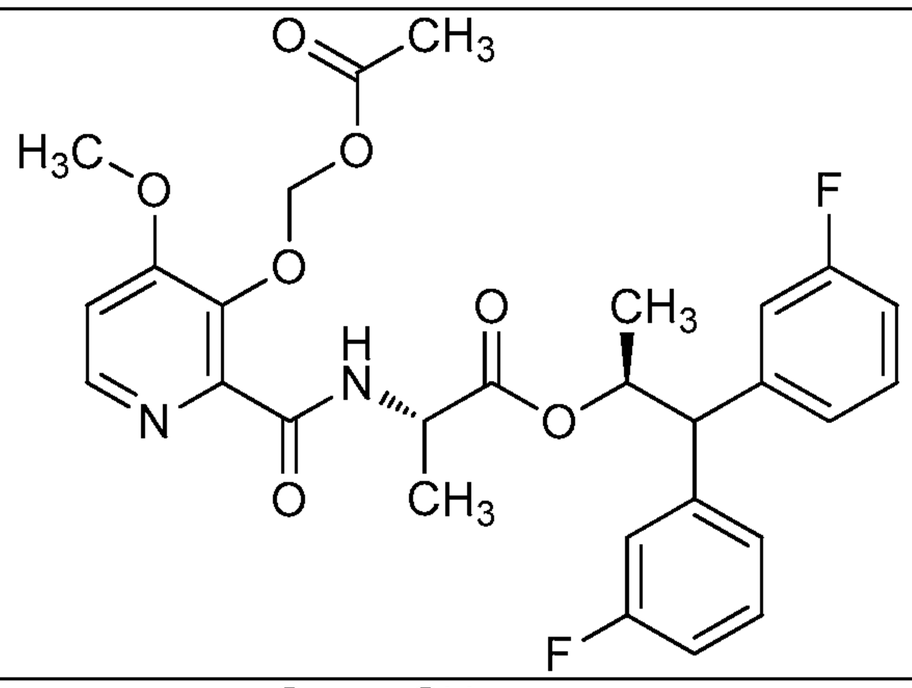
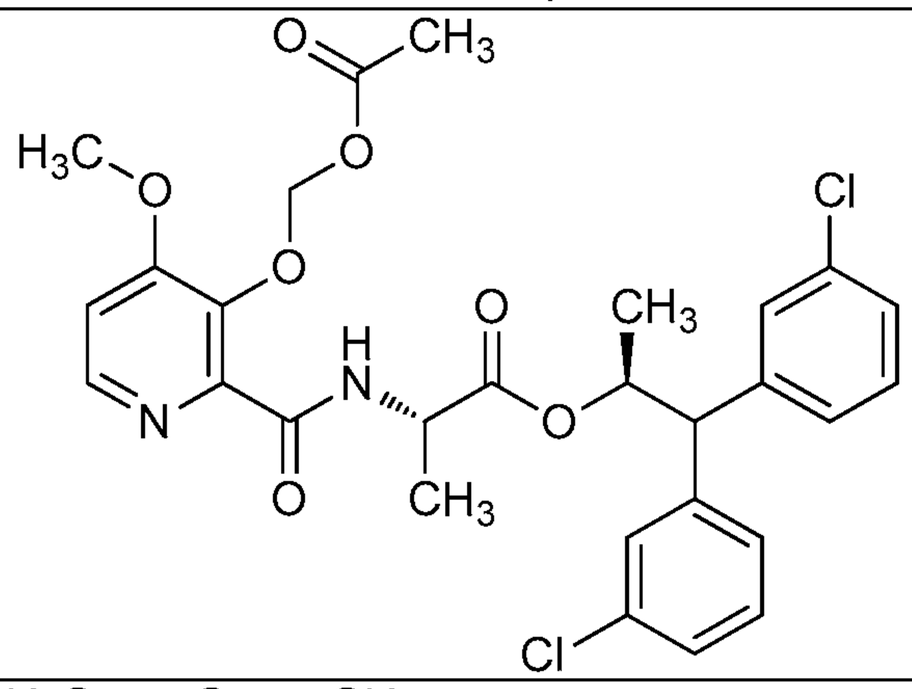
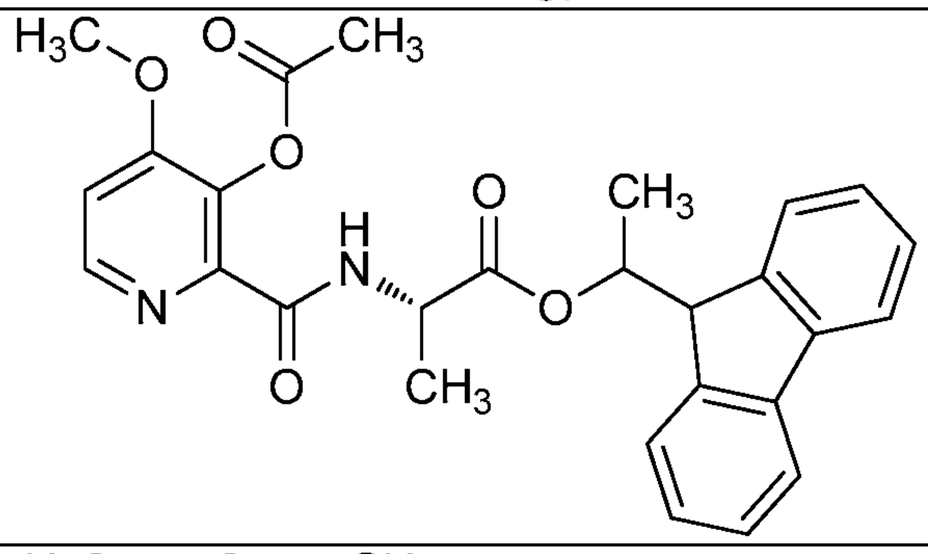
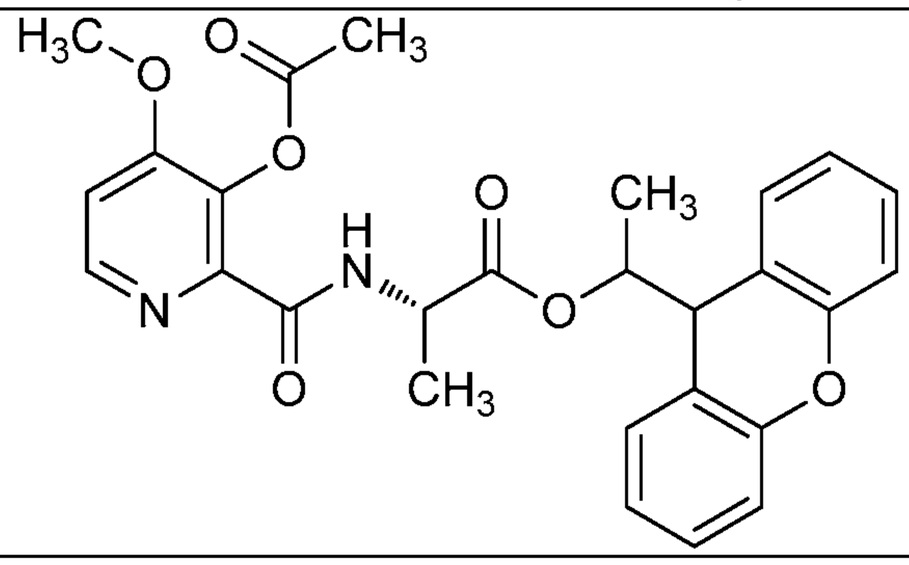
*Cmpd. No.	Structure	Prepared According To Example	Appearance
138		Example 6B	Colorless Semi-Solid
139		Example 6A	Colorless Oil
140		Example 6A	White Foam
141		Example 6B	White Foam

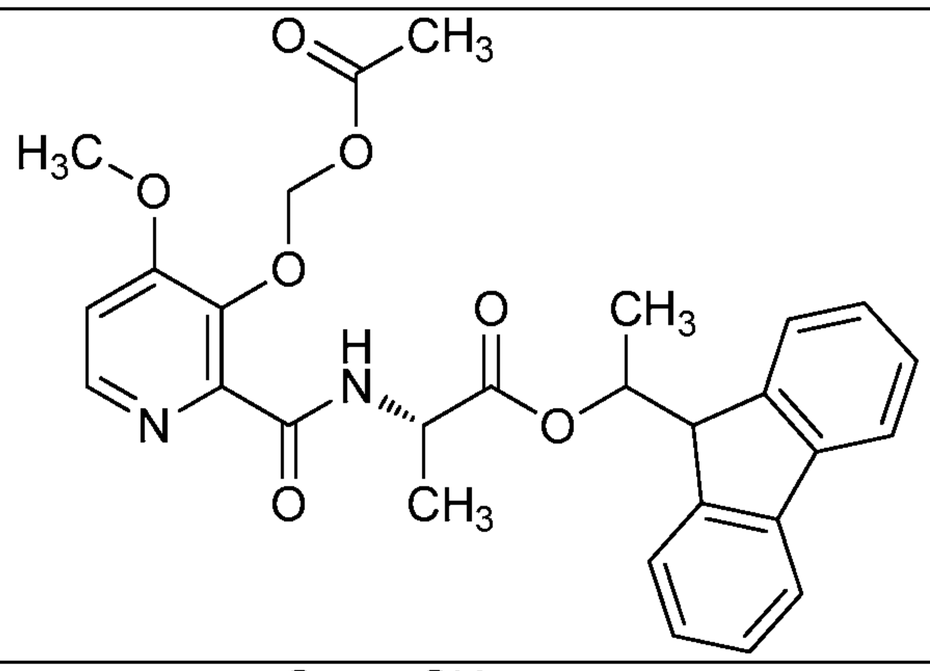
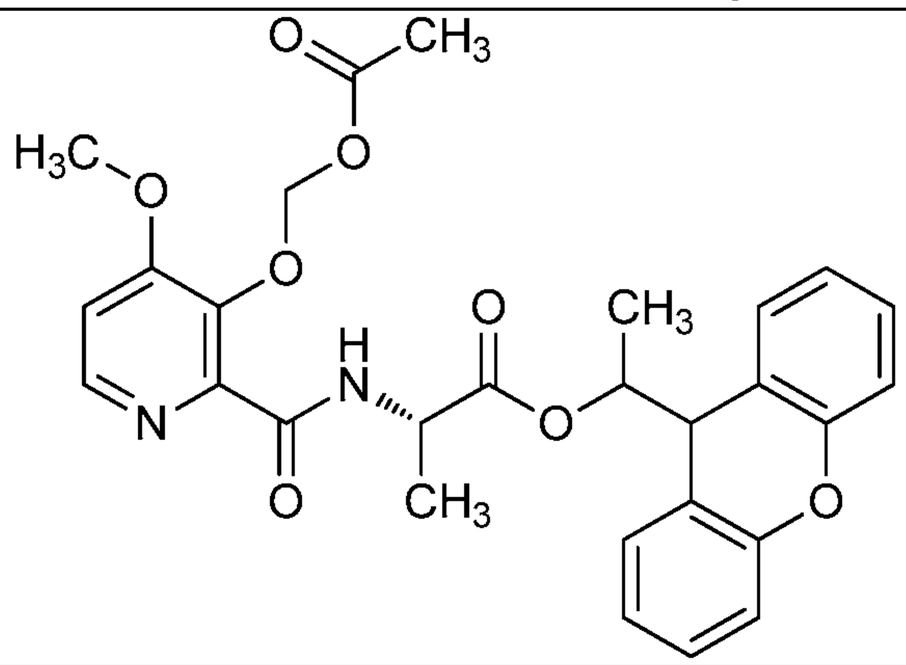
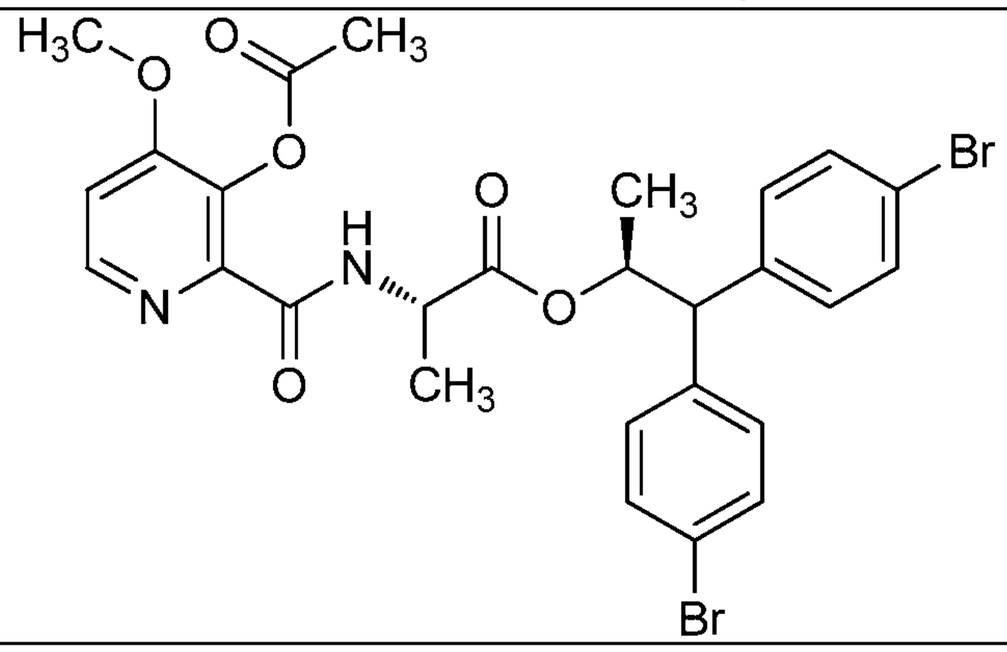
*Cmpd. No.	Structure	Prepared According To Example	Appearance
142		Example 6C	White Foam
143		Example 6A	Colorless Oil
144		Example 6B	Colorless Oil
145		Example 6A	Colorless Oil

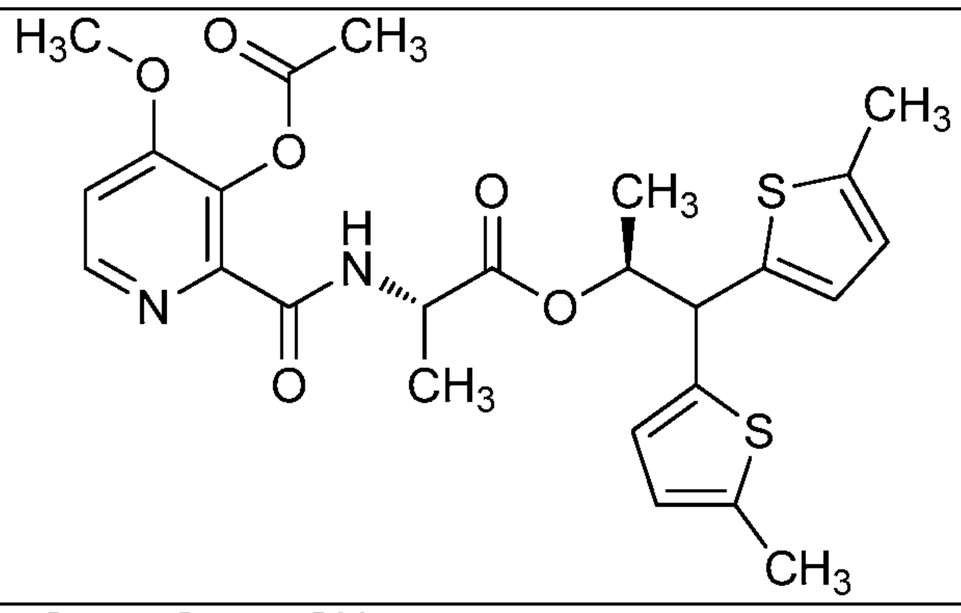
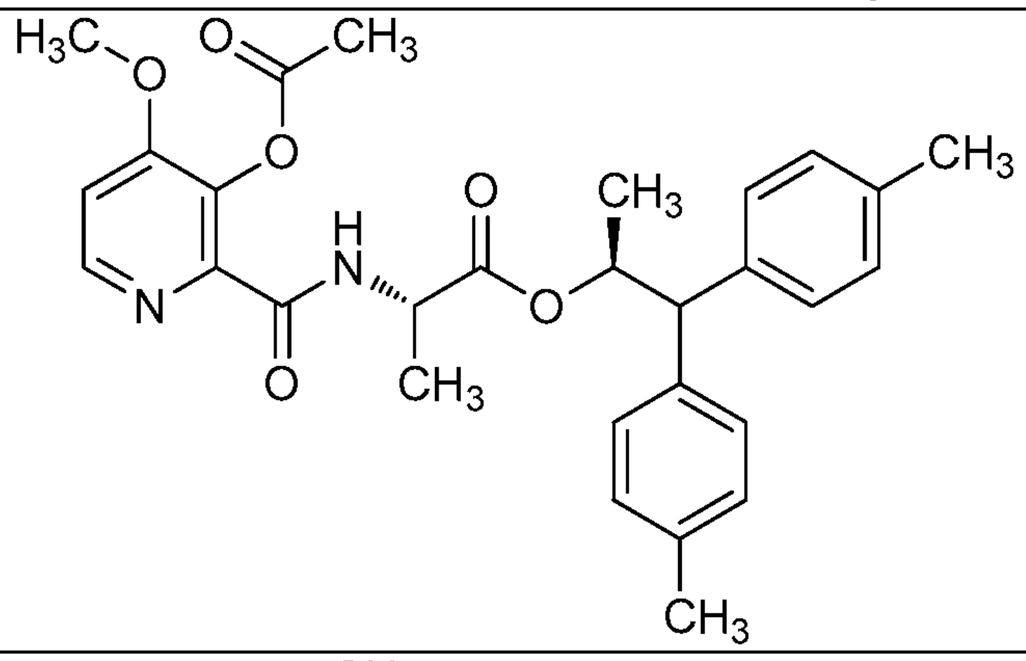
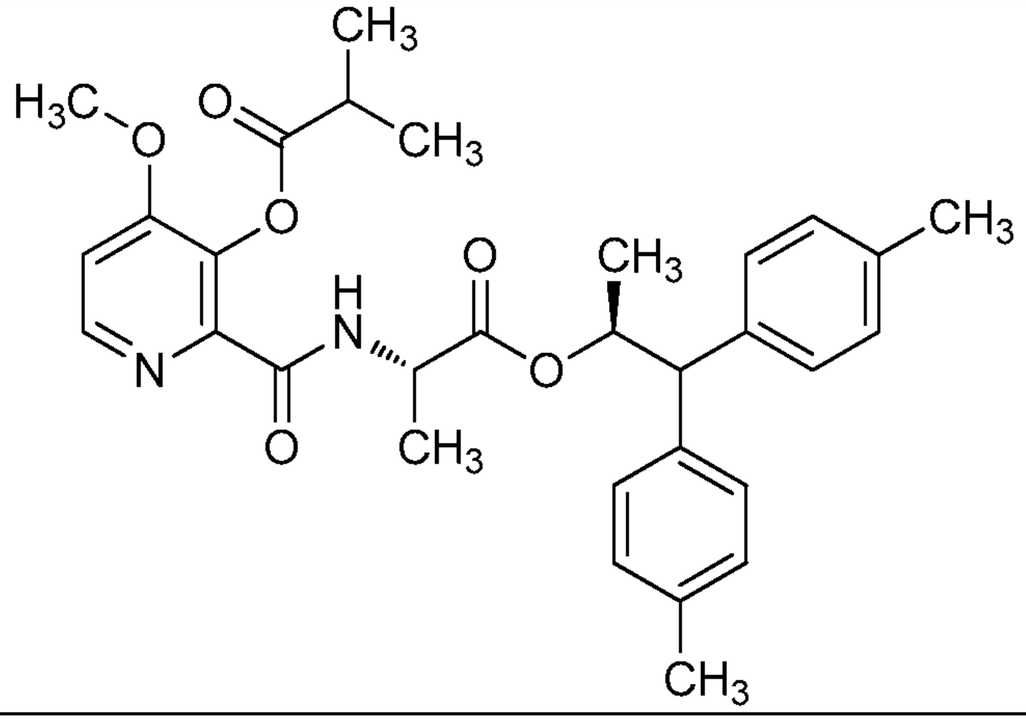
*Cmpd. No.	Structure	Prepared According To Example	Appearance
146		Example 6B	Colorless Oil
147		Example 6B	Colorless Oil
148		Example 6B	Colorless Oil

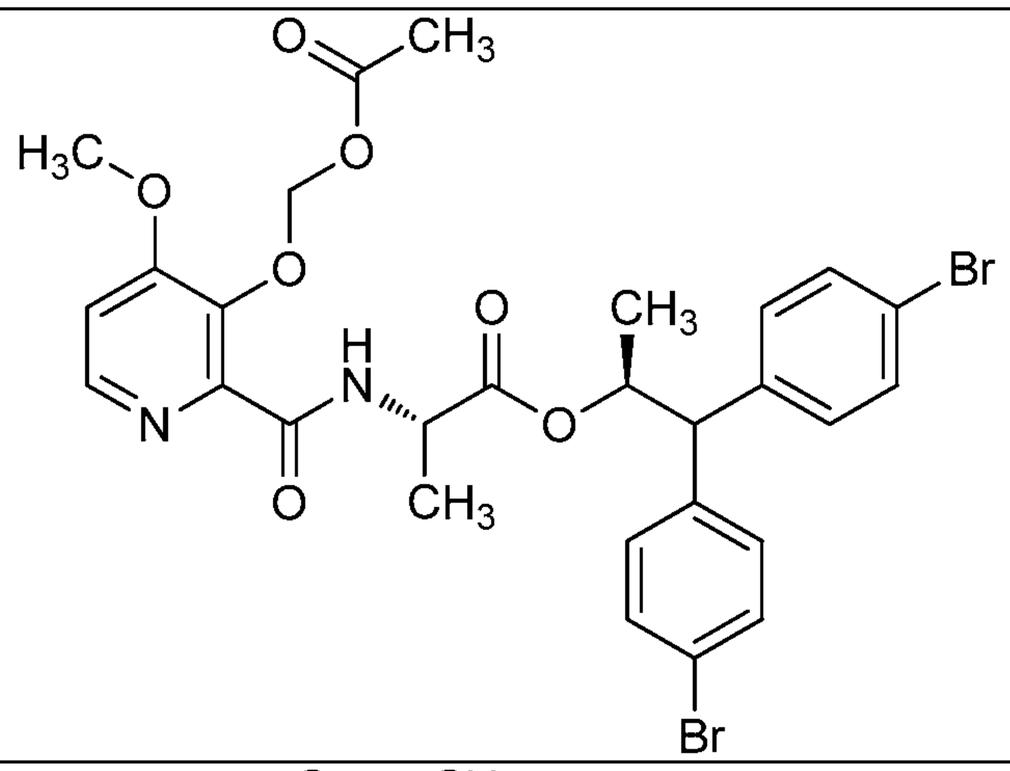
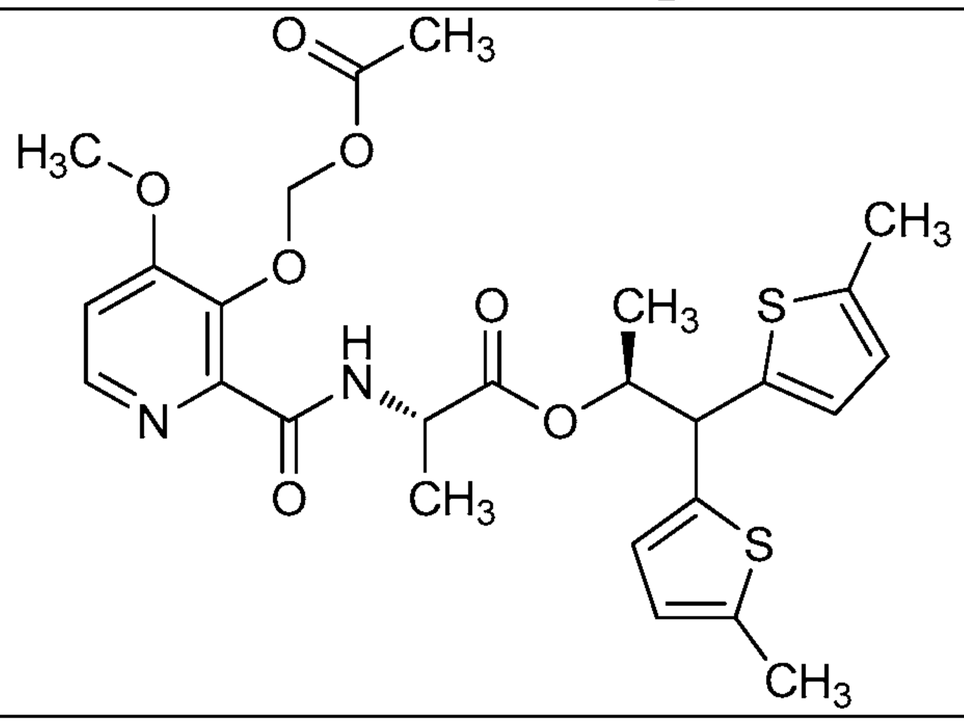
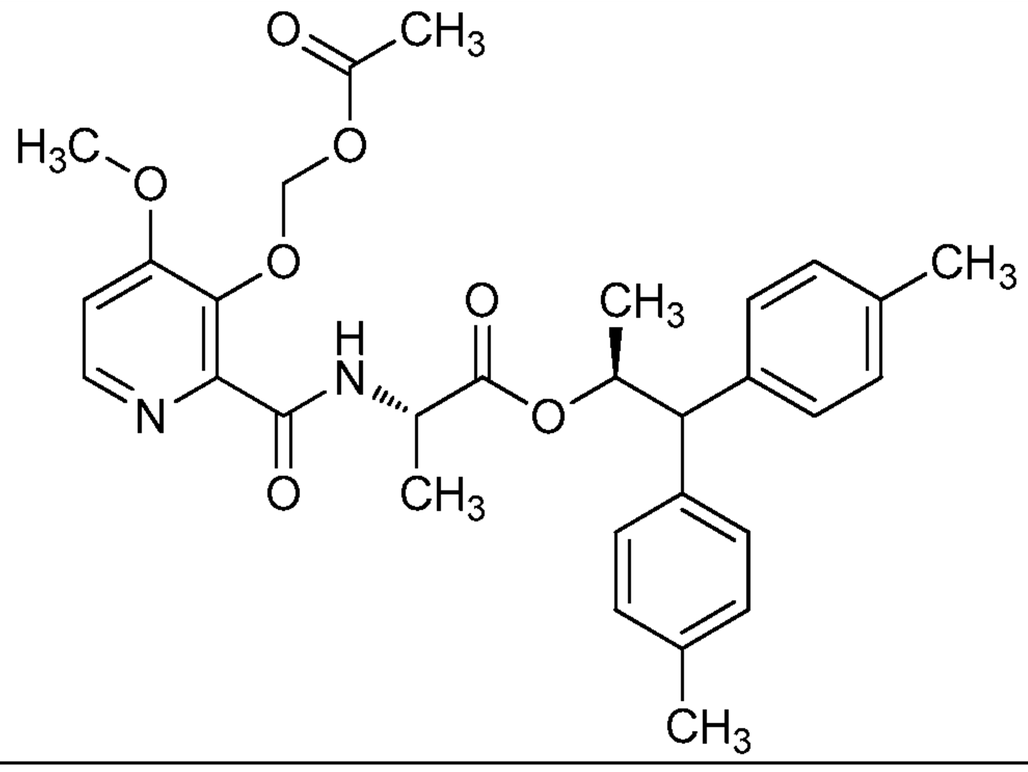
*Cmpd. No.	Structure	Prepared According To Example	Appearance
149		Example 6B	Colorless Oil
150		Example 6A	Colorless Oil
152		Example 6A	Colorless Oil
153		Example 6B	Colorless Oil

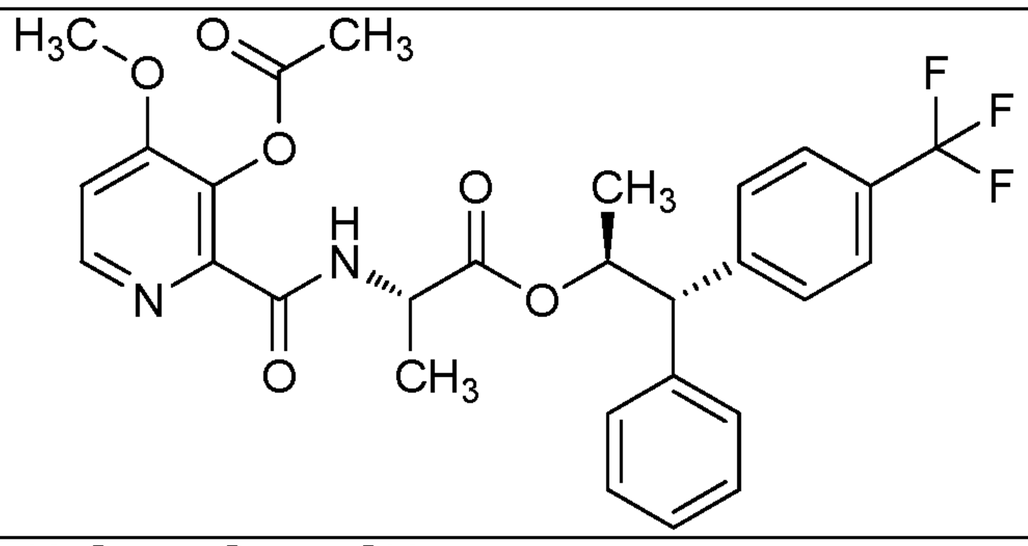
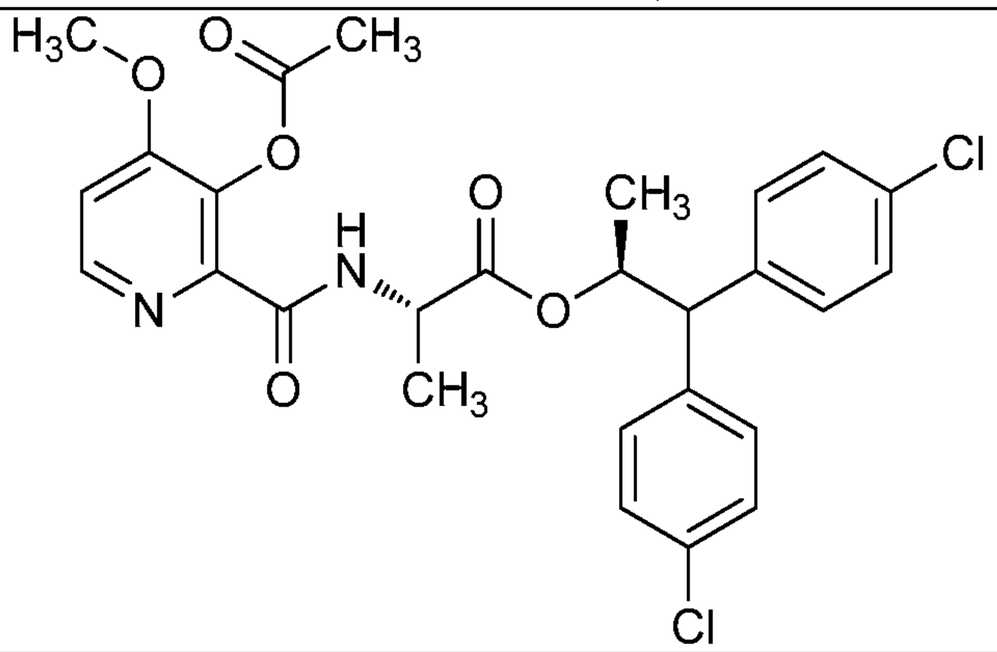
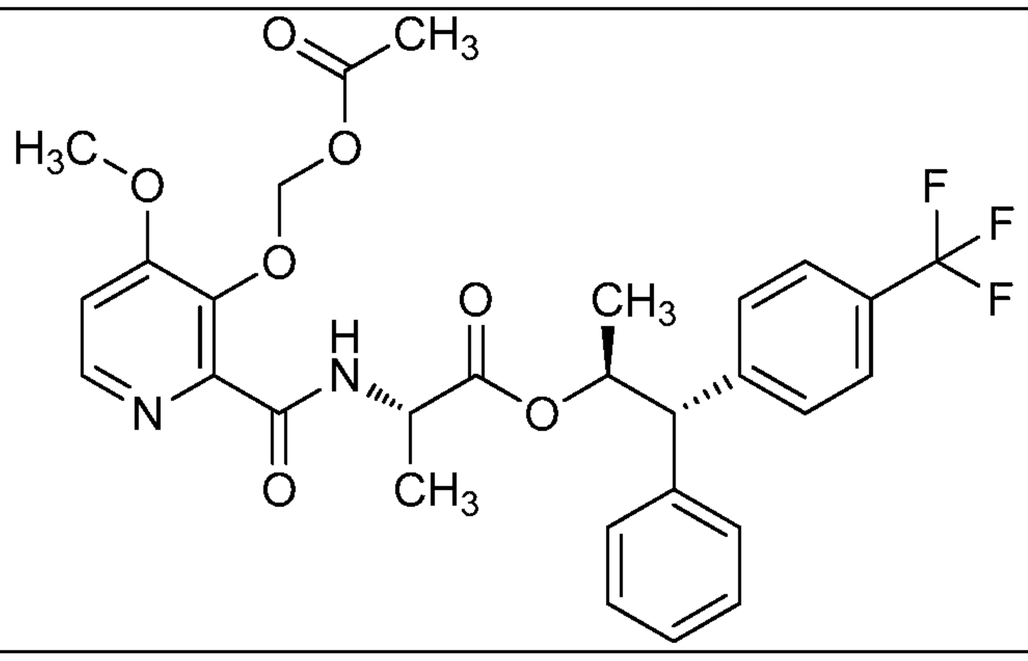
*Cmpd. No.	Structure	Prepared According To Example	Appearance
155		Example 6A	Colorless Oil
156		Example 6A	Colorless Oil
157		Example 6A	Colorless Oil
158		Example 6B	Colorless Oil

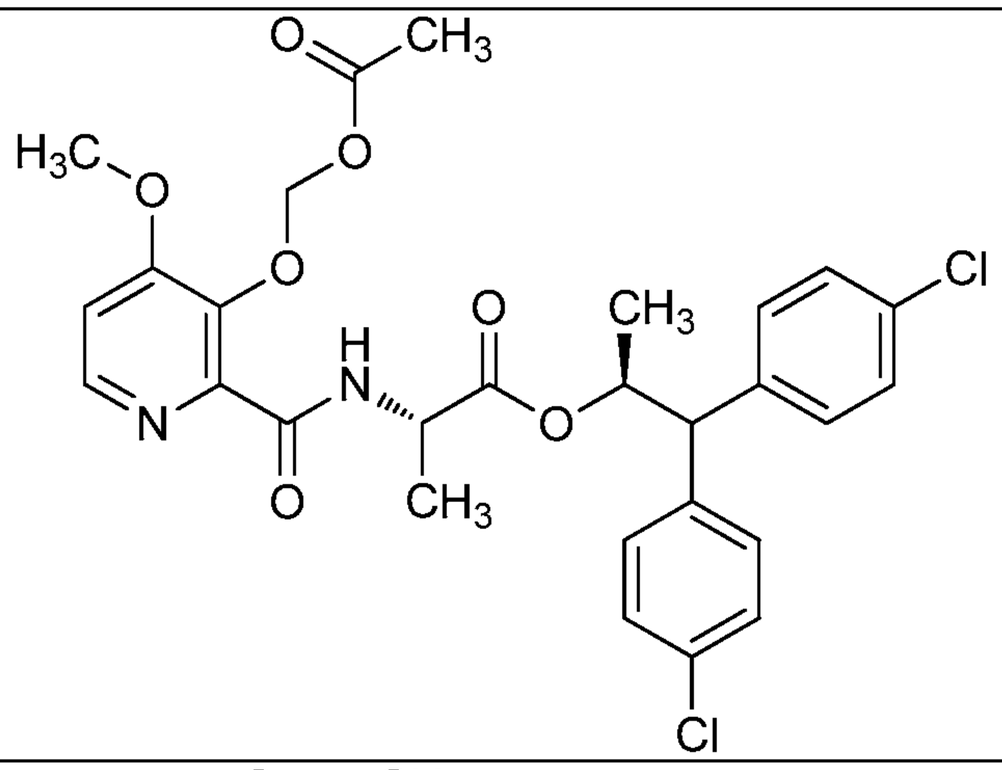
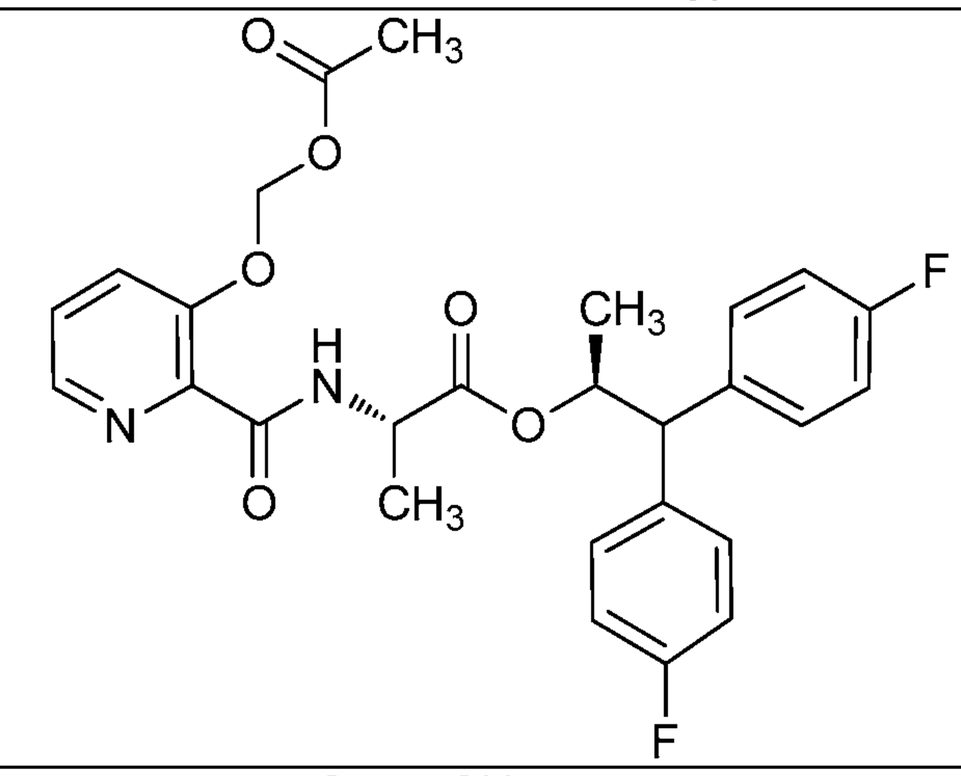
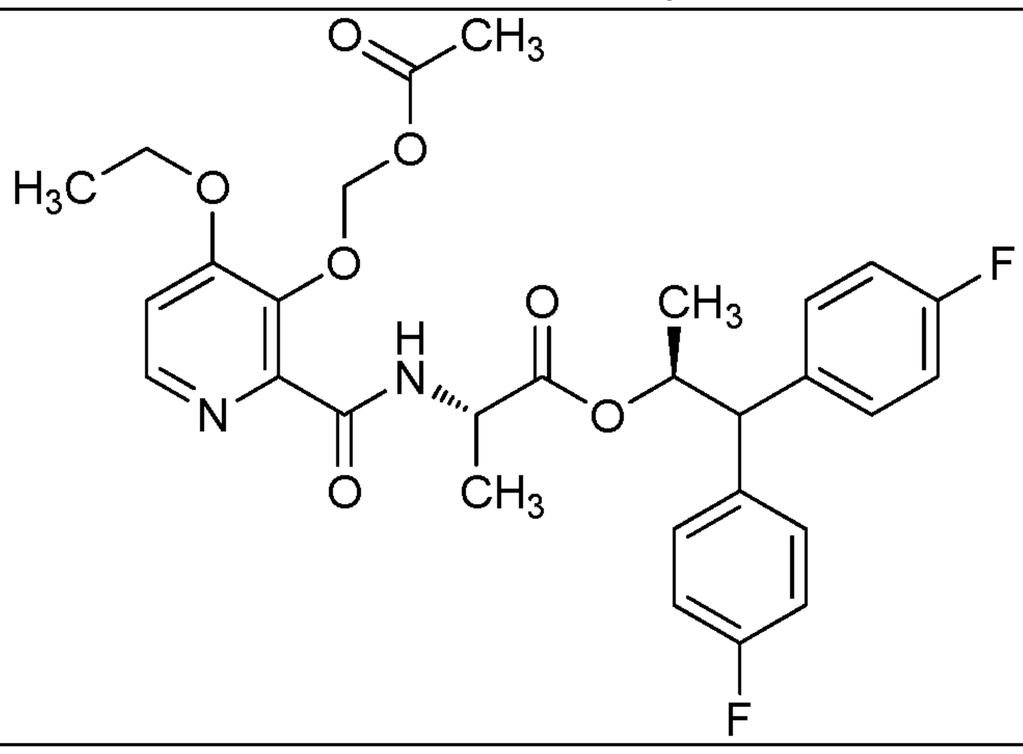
*Cmpd. No.	Structure	Prepared According To Example	Appearance
159		Example 6B	Colorless Oil
160		Example 6B	Colorless Oil
161		Example 6A	Colorless Oil
162		Example 6A	Colorless Oil

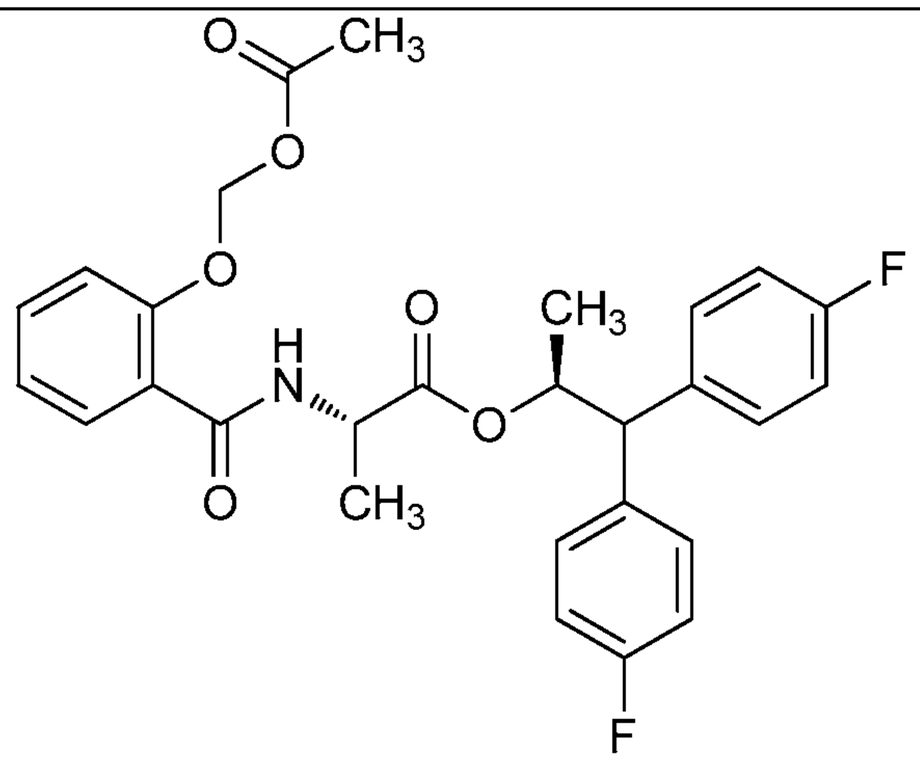
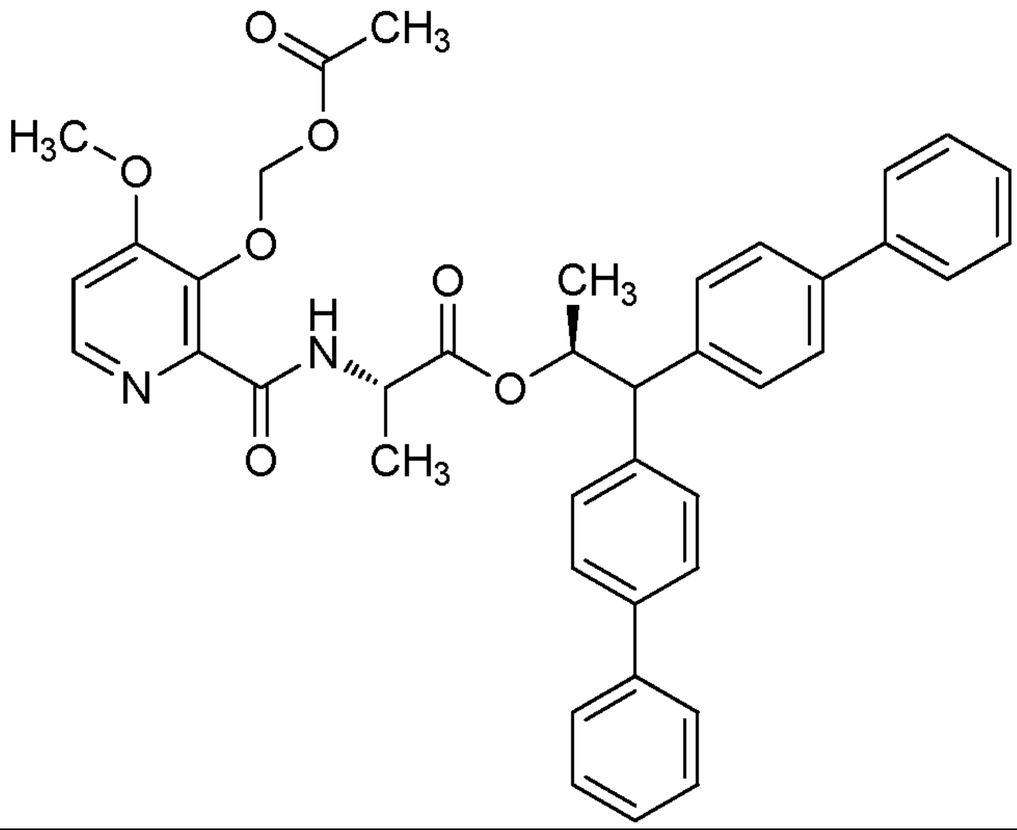
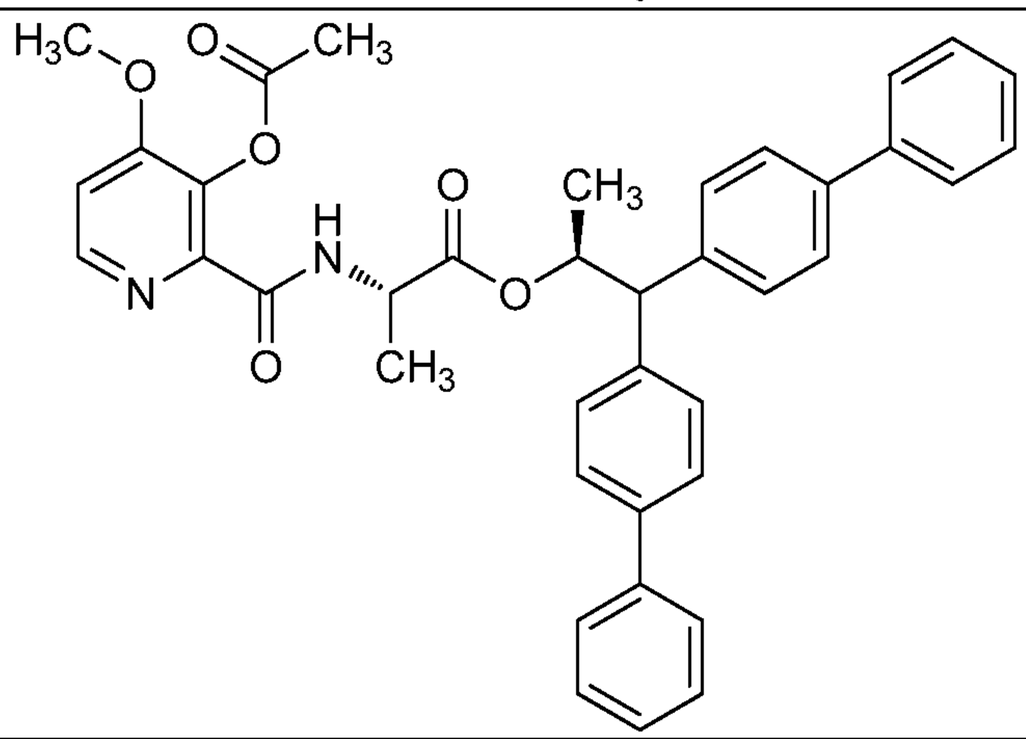
*Cmpd. No.	Structure	Prepared According To Example	Appearance
163		Example 6B	Colorless Oil
164		Example 6B	Colorless Oil
165		Example 6A	Colorless Oil

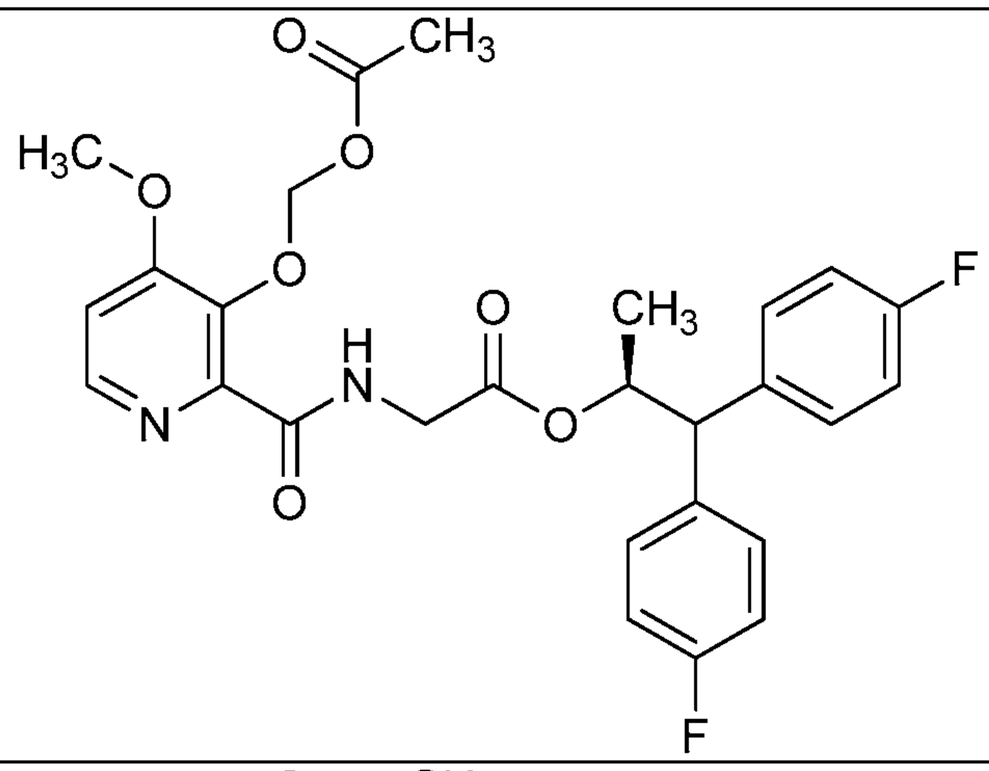
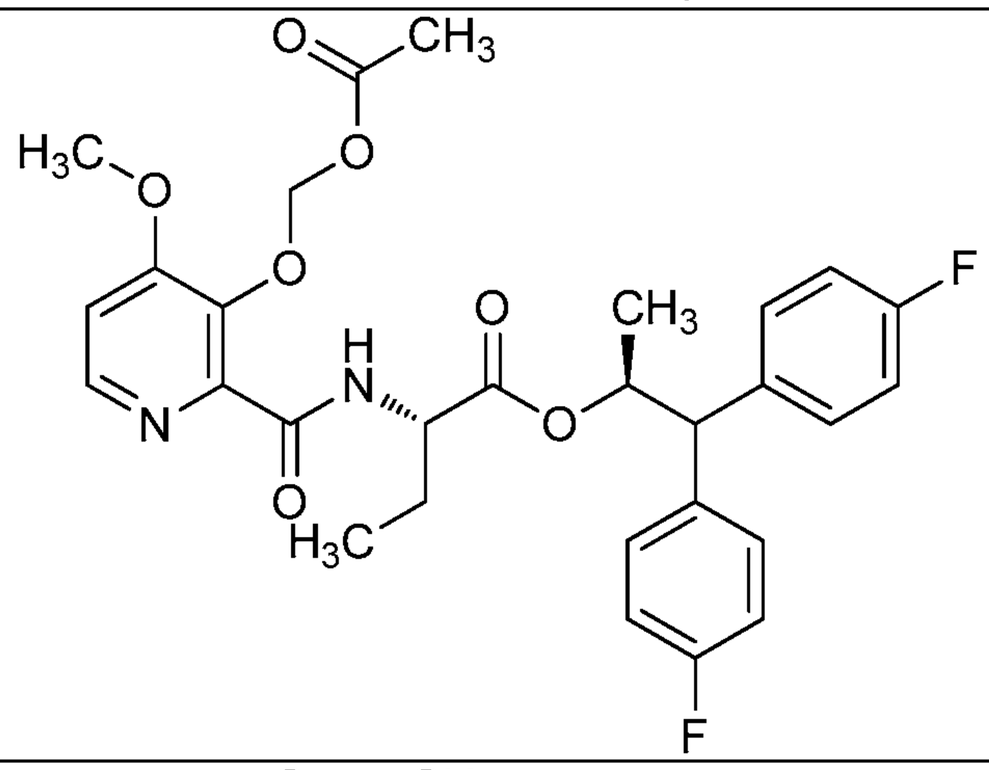
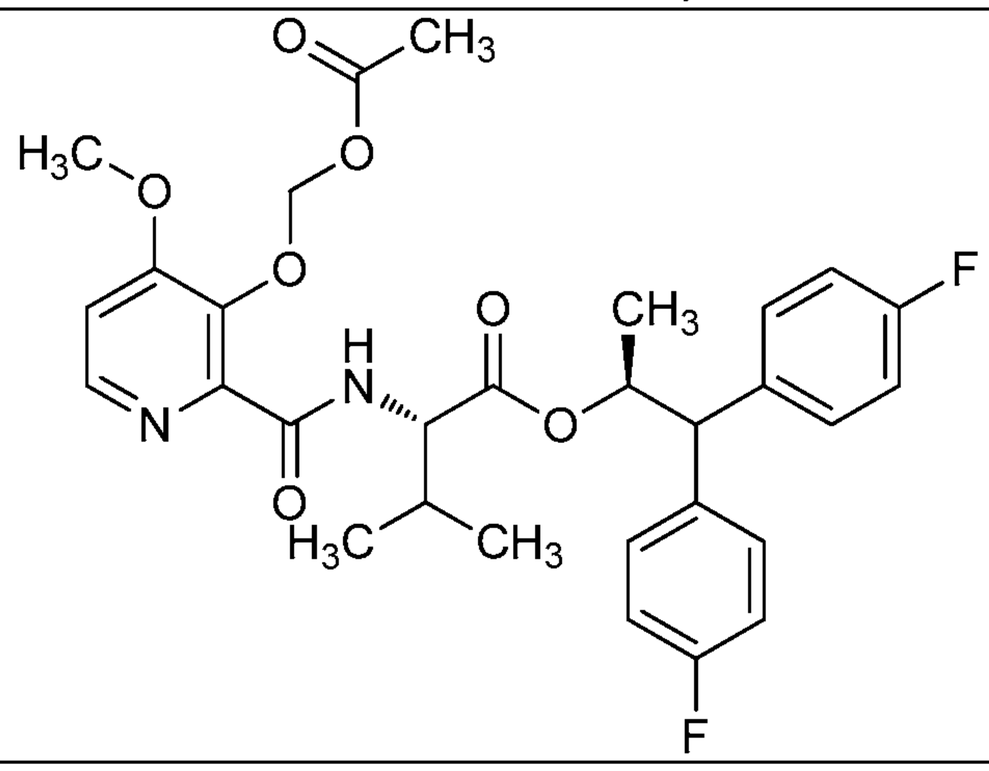
*Cmpd. No.	Structure	Prepared According To Example	Appearance
166		Example 6A	Colorless Oil
167		Example 6A	Colorless Oil
168		Example 6A	Colorless Oil

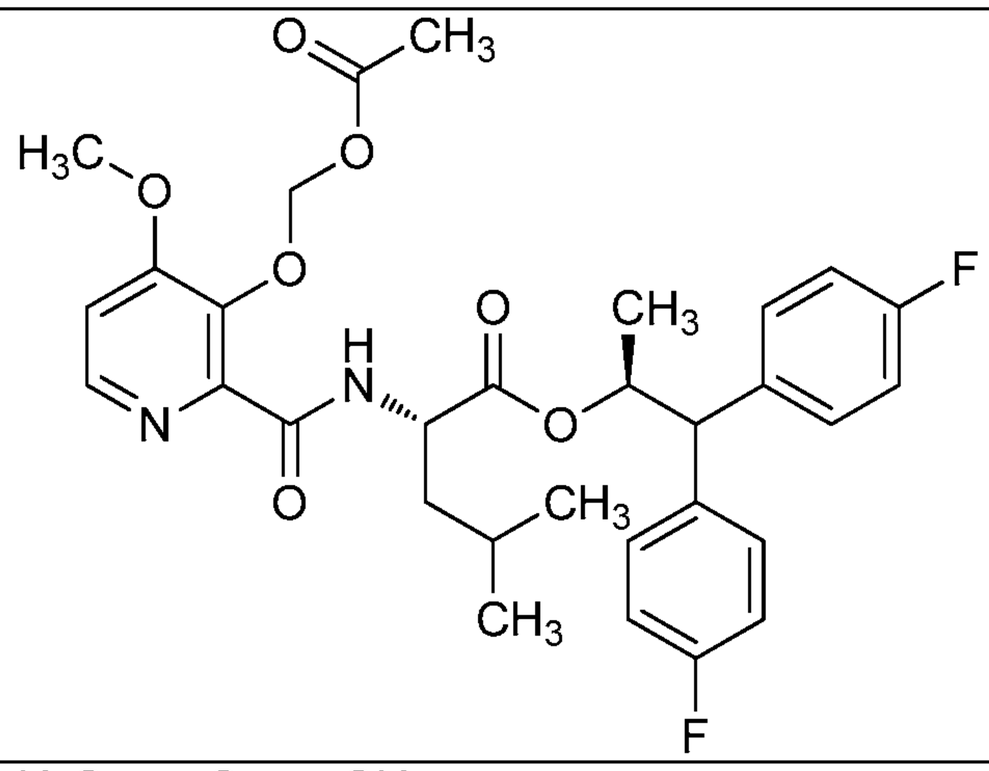
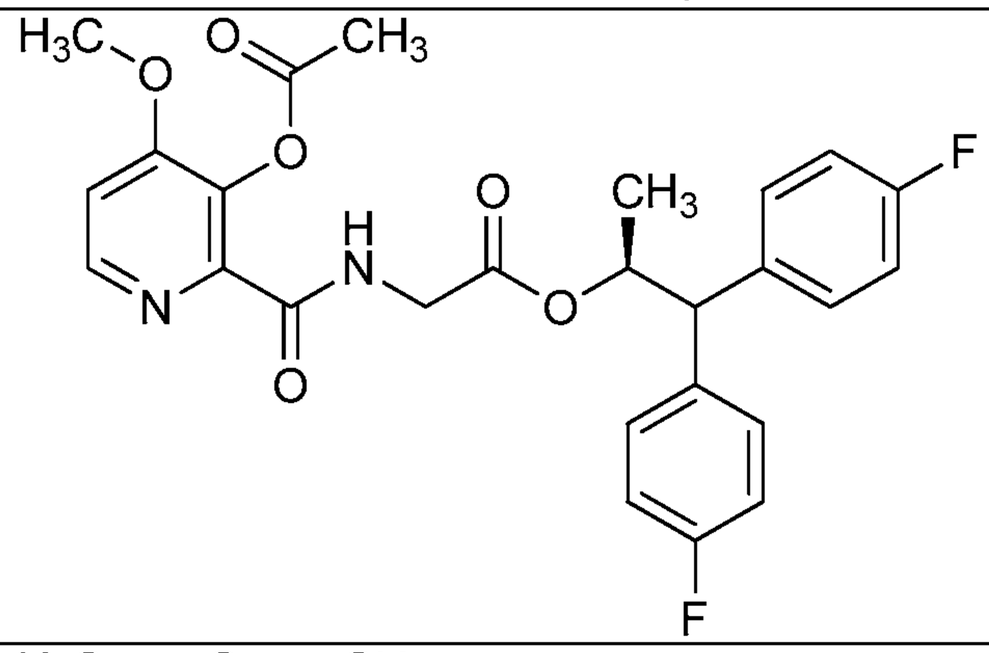
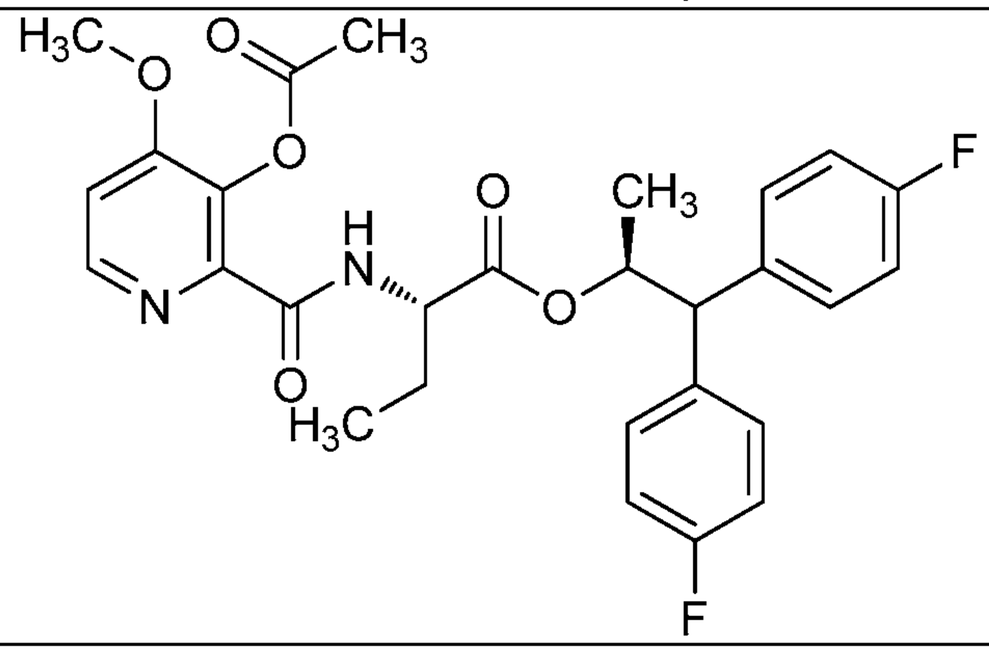
*Cmpd. No.	Structure	Prepared According To Example	Appearance
169		Example 6B	Colorless Oil
170		Example 6B	Colorless Oil
171		Example 6B	Colorless Oil

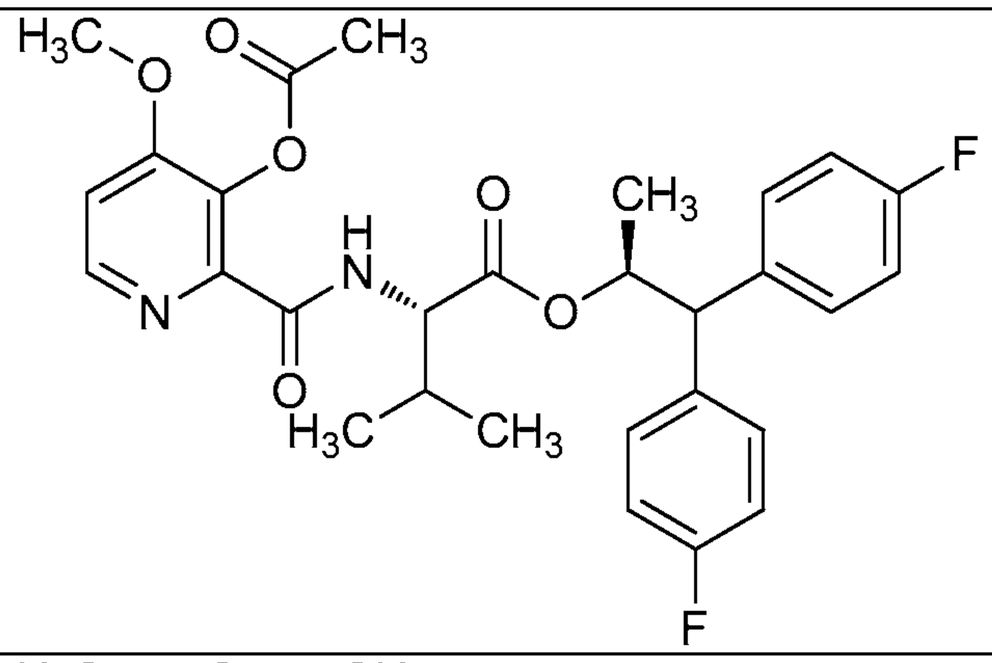
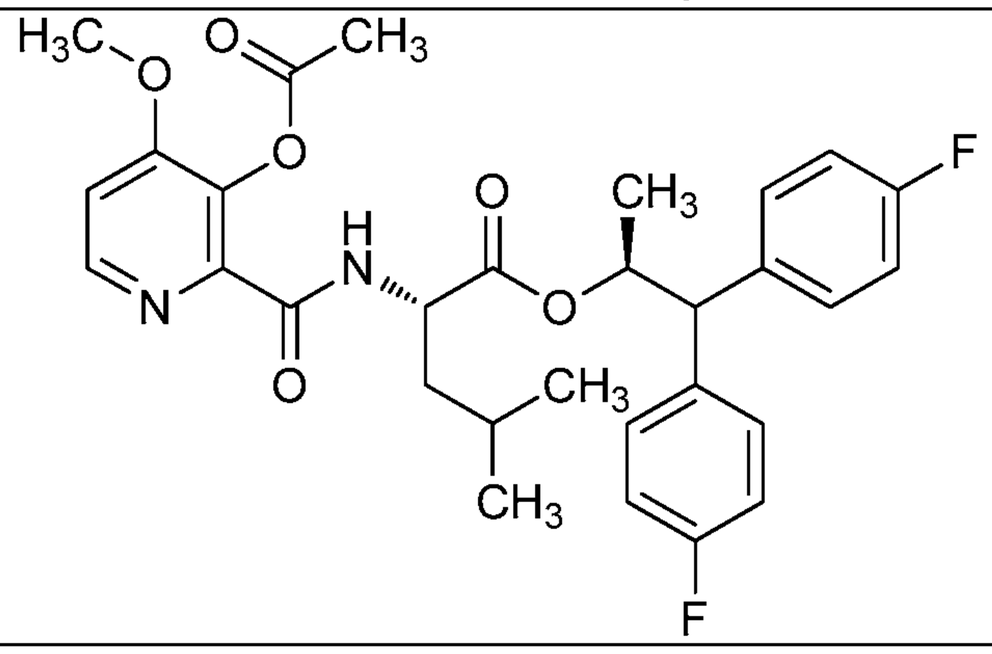
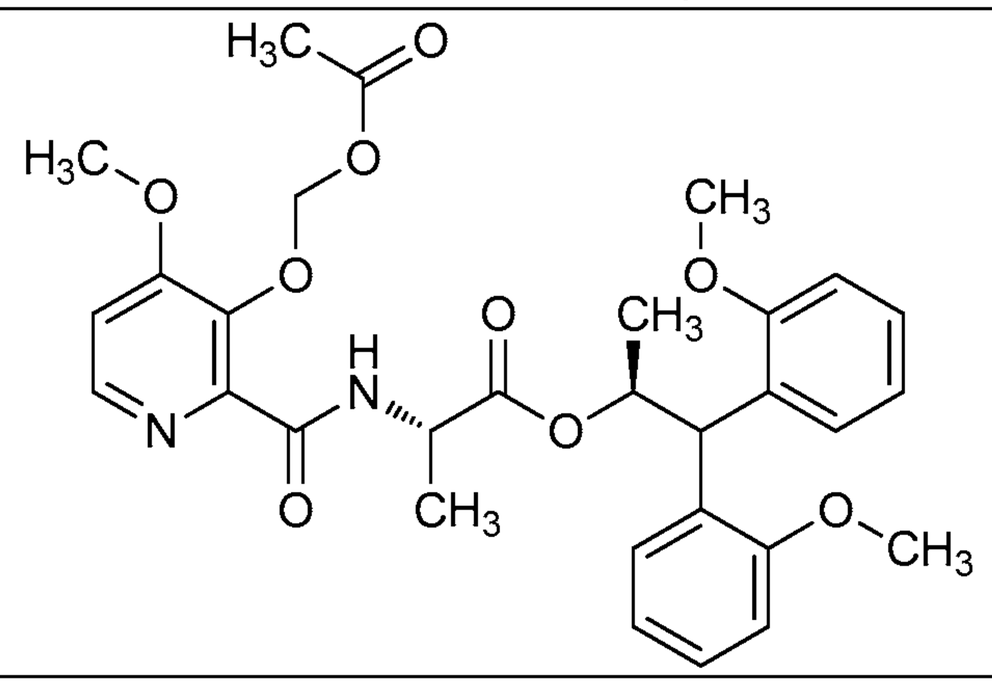
*Cmpd. No.	Structure	Prepared According To Example	Appearance
173		Example 6A	Colorless Oil
174		Example 6A	Colorless Oil
175		Example 6B	Colorless Oil

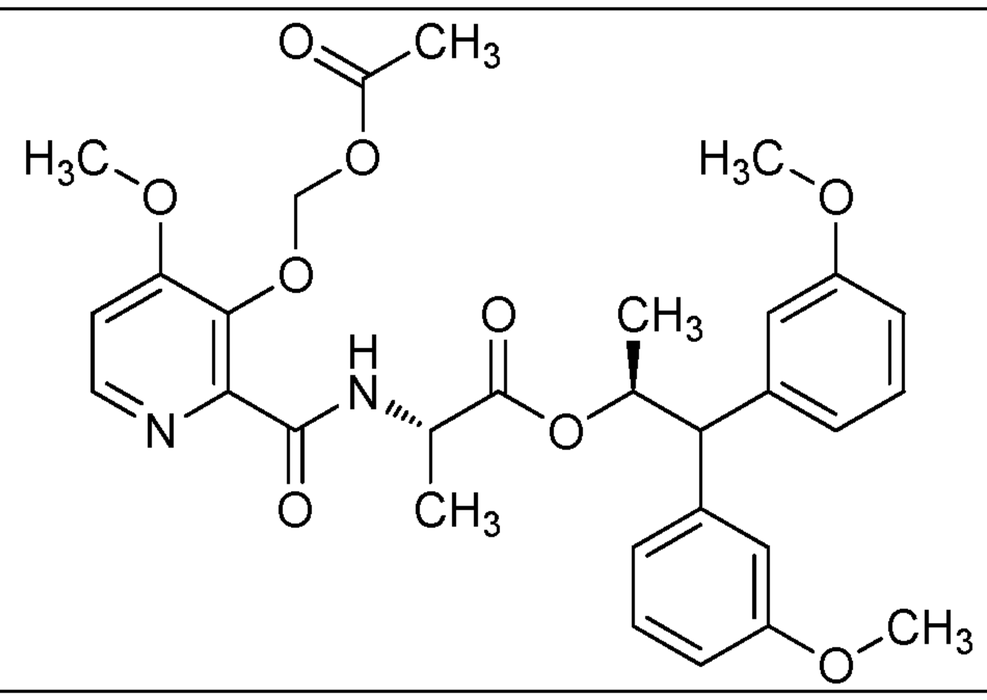
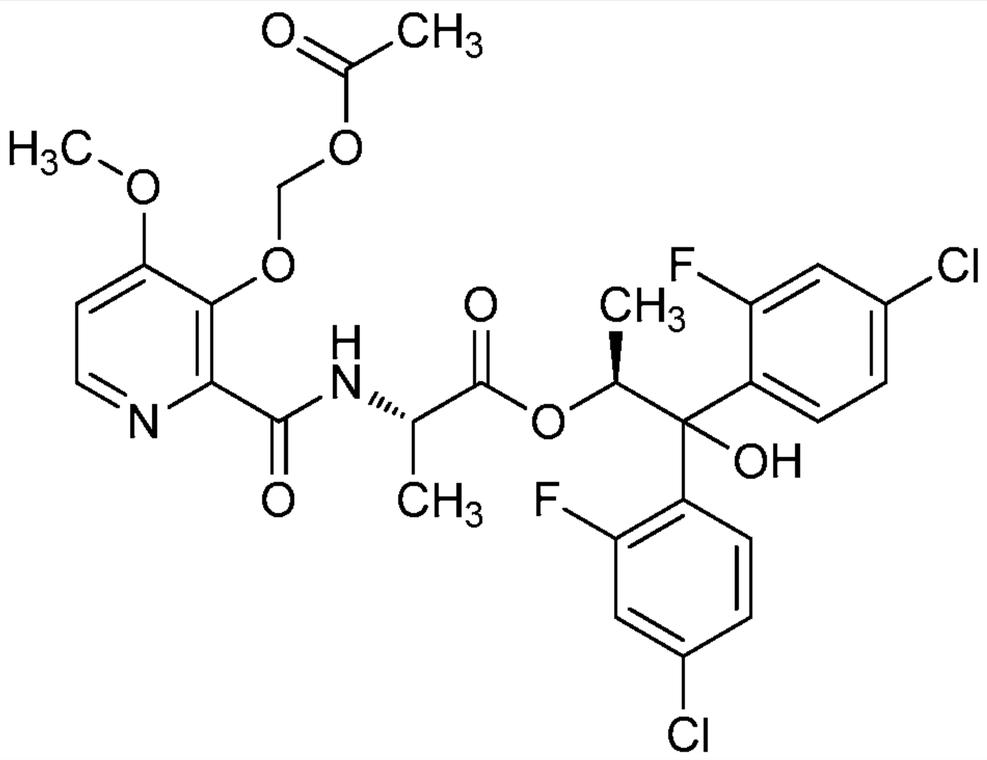
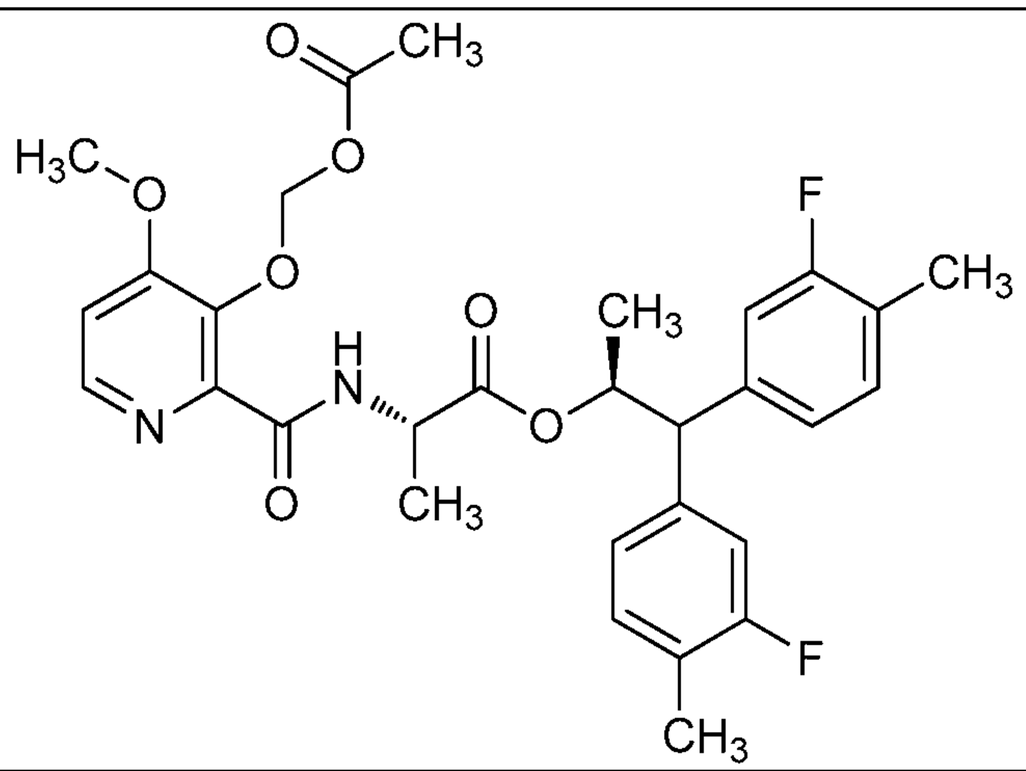
*Cmpd. No.	Structure	Prepared According To Example	Appearance
176		Example 6B	Colorless Oil
178		Example 6B	Clear, Colorless Oil
179		Example 6B	Clear, Colorless Oil

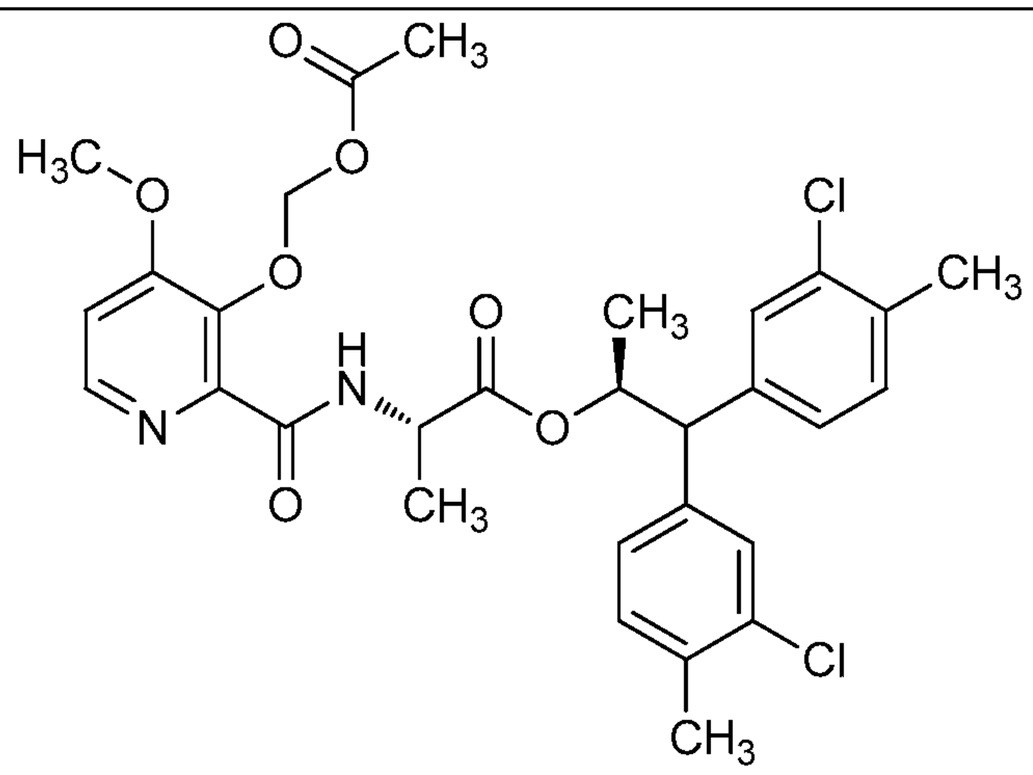
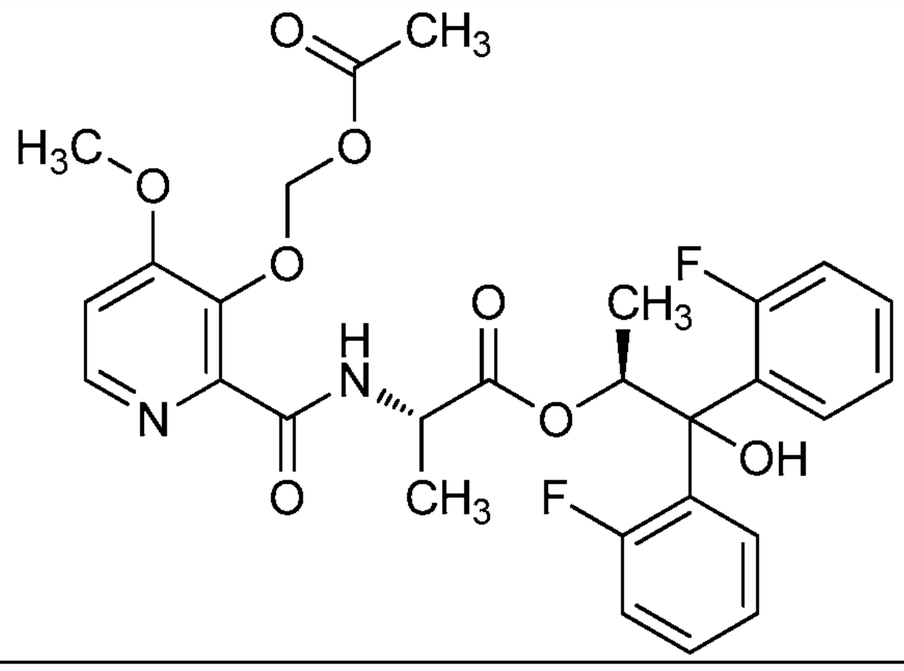
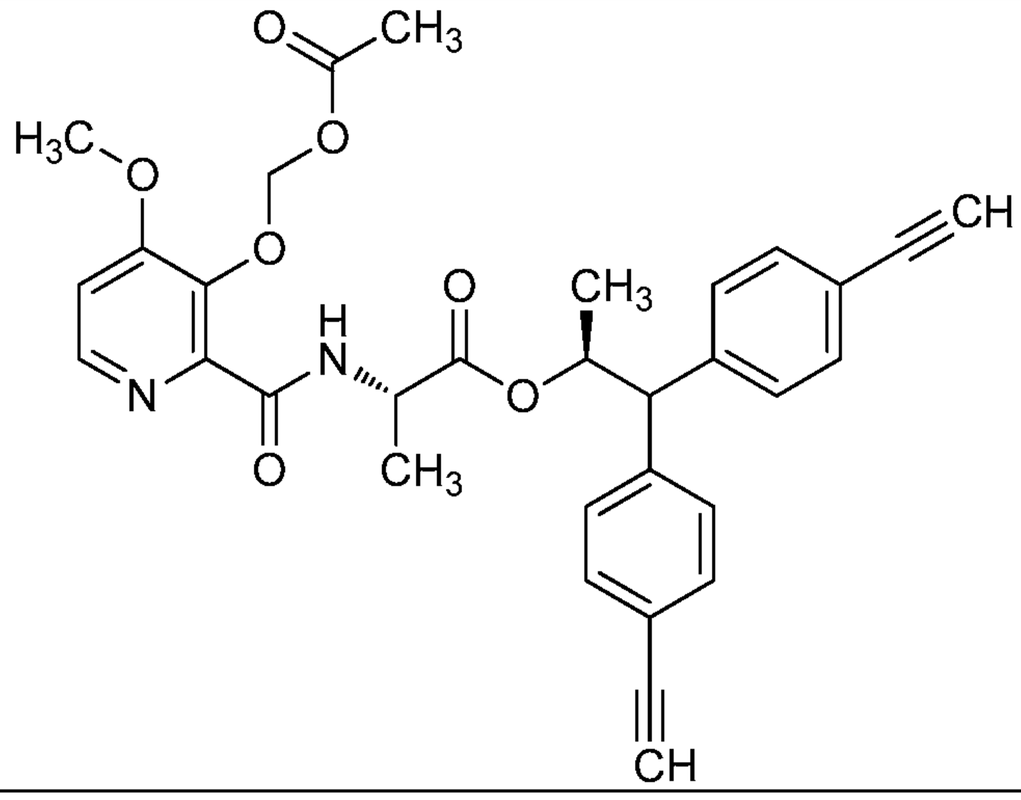
*Cmpd. No.	Structure	Prepared According To Example	Appearance
180		Example 6B	Clear, Colorless Oil
181		Example 6B	White Foam
182		Example 6A	Colorless Oil

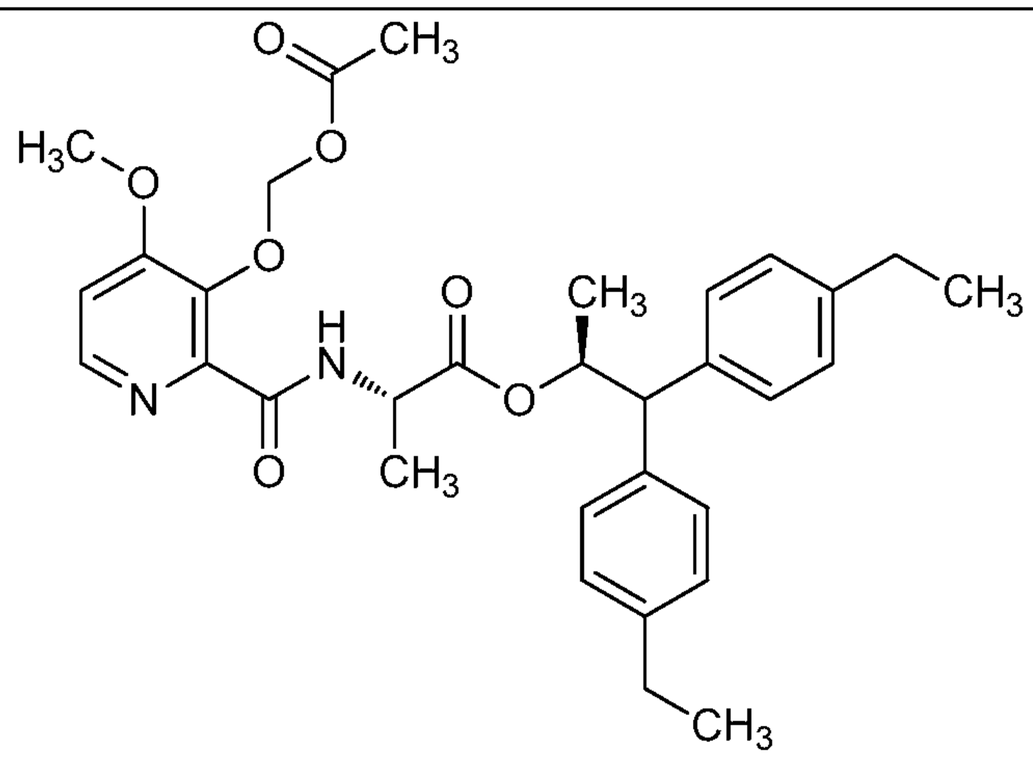
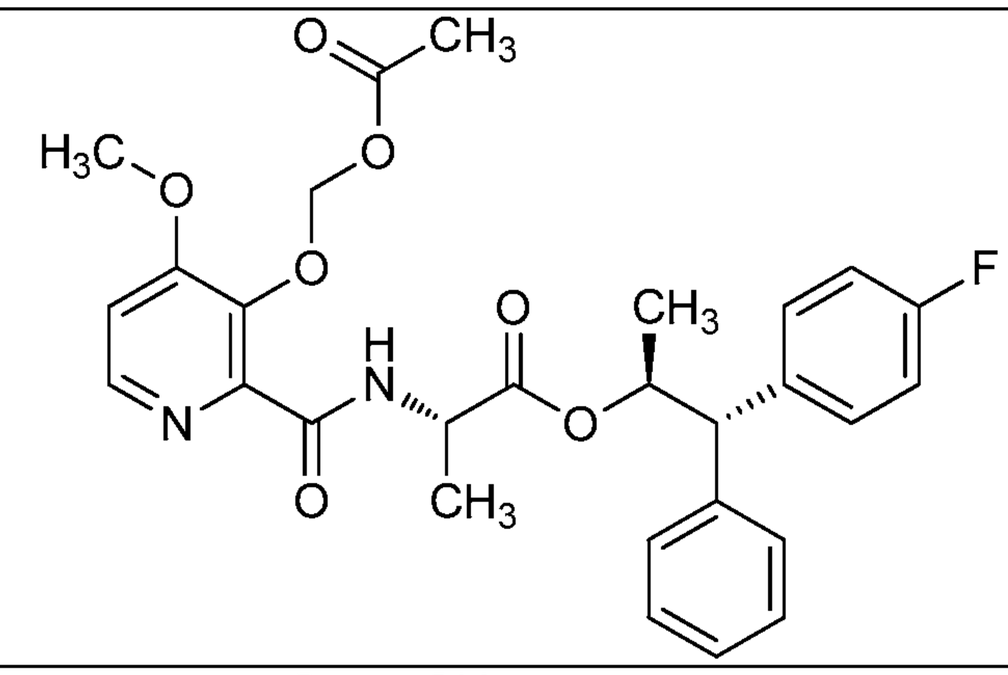
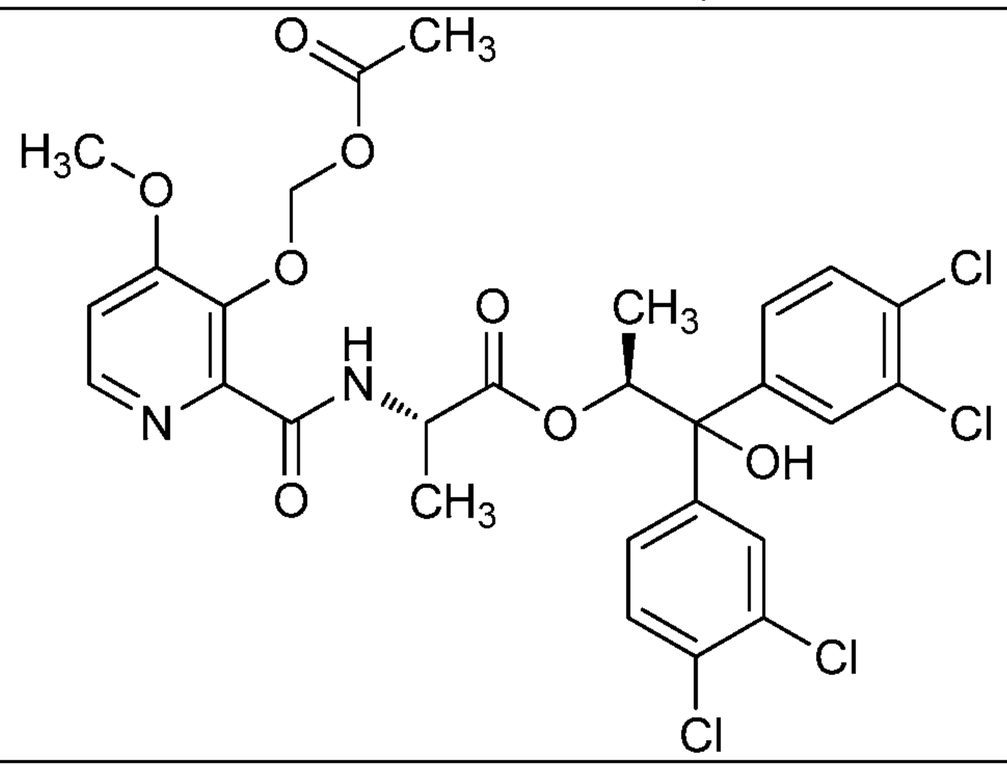
*Cmpd. No.	Structure	Prepared According To Example	Appearance
183		Example 6B	White Solid
184		Example 6B	White Solid
185		Example 6B	White Solid

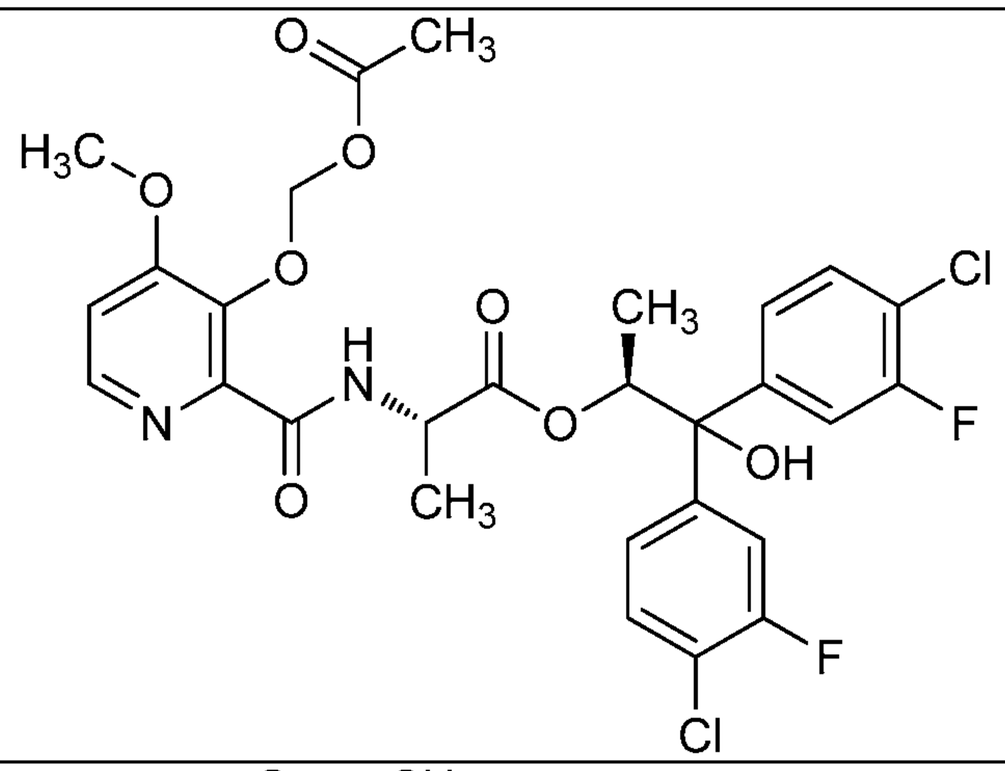
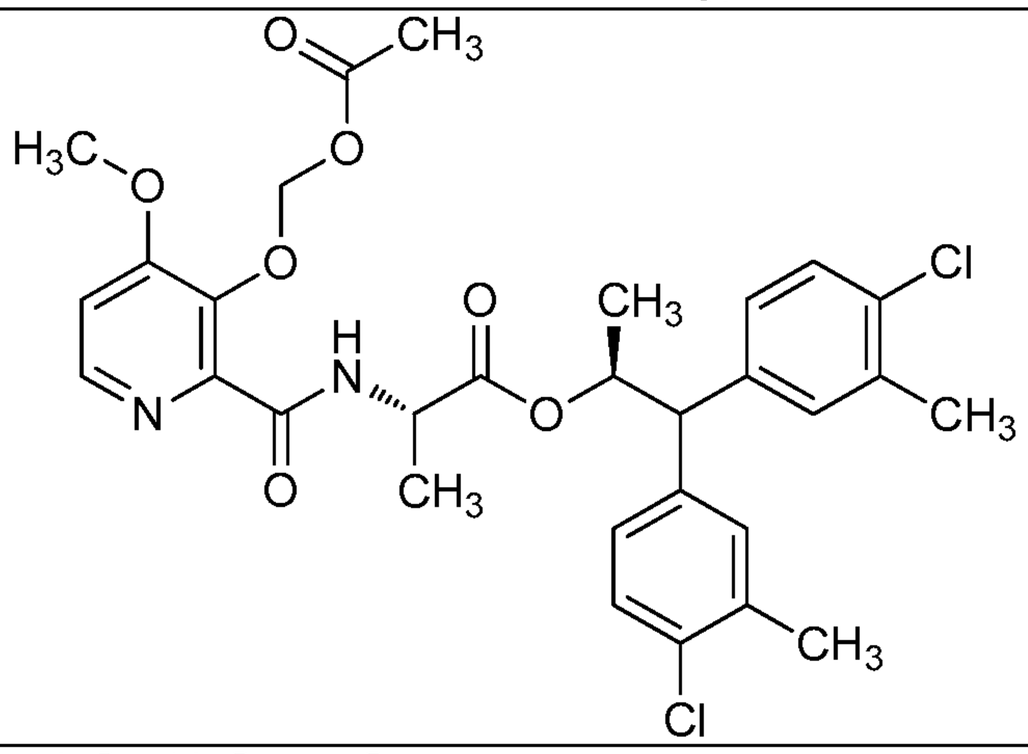
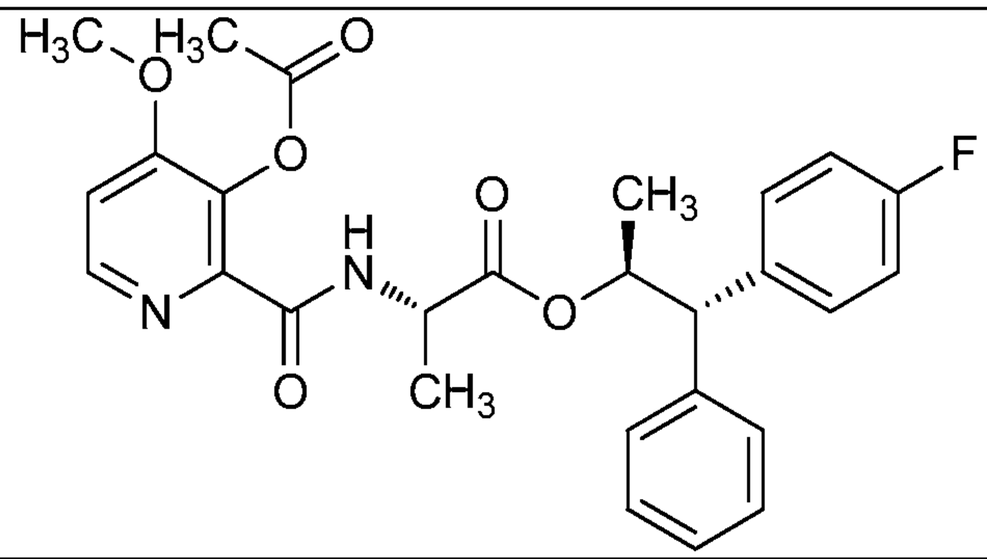
*Cmpd. No.	Structure	Prepared According To Example	Appearance
186		Example 6B	White Solid
187		Example 6A	White Solid
188		Example 6A	White Solid

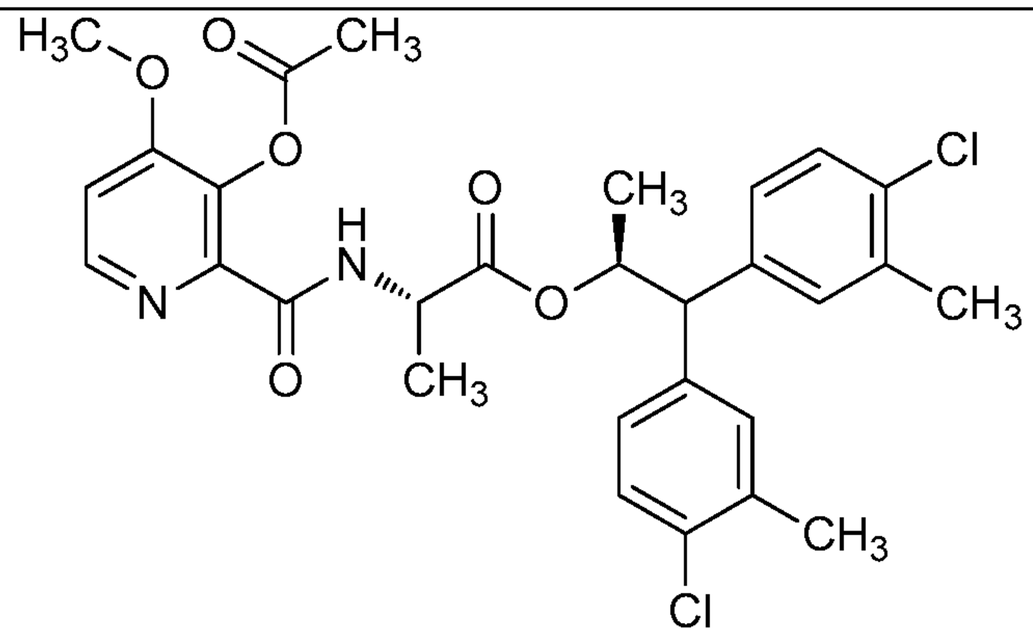
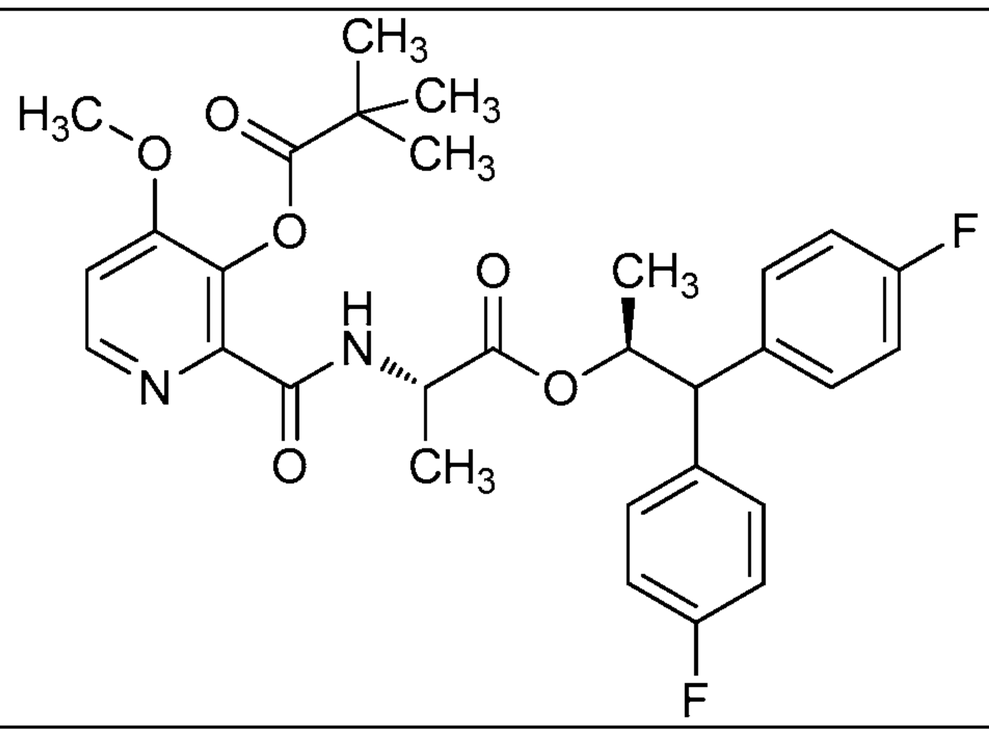
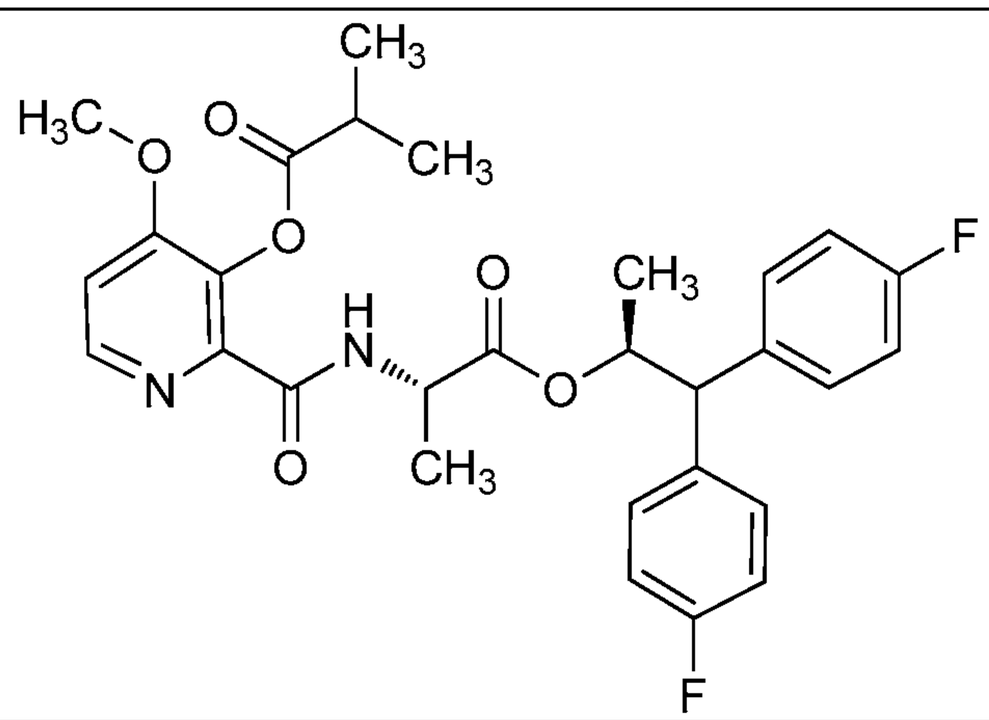
*Cmpd. No.	Structure	Prepared According To Example	Appearance
189		Example 6A	White Solid
190		Example 6A	White Solid
191		Example 6B	White Foam

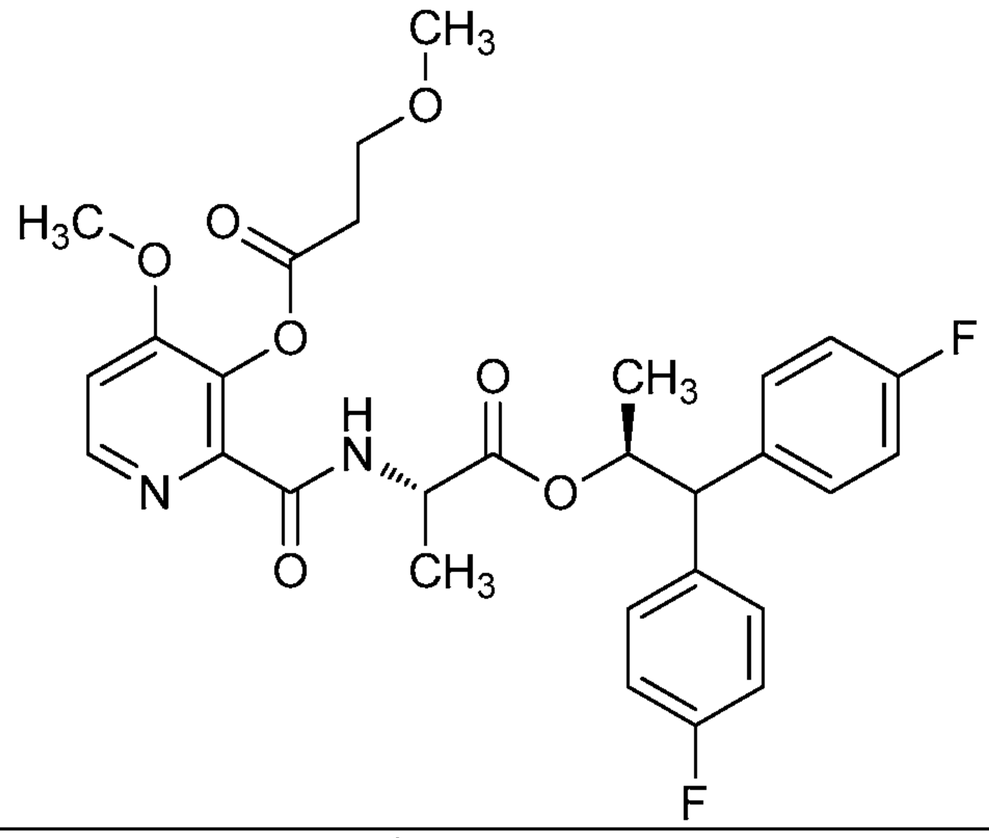
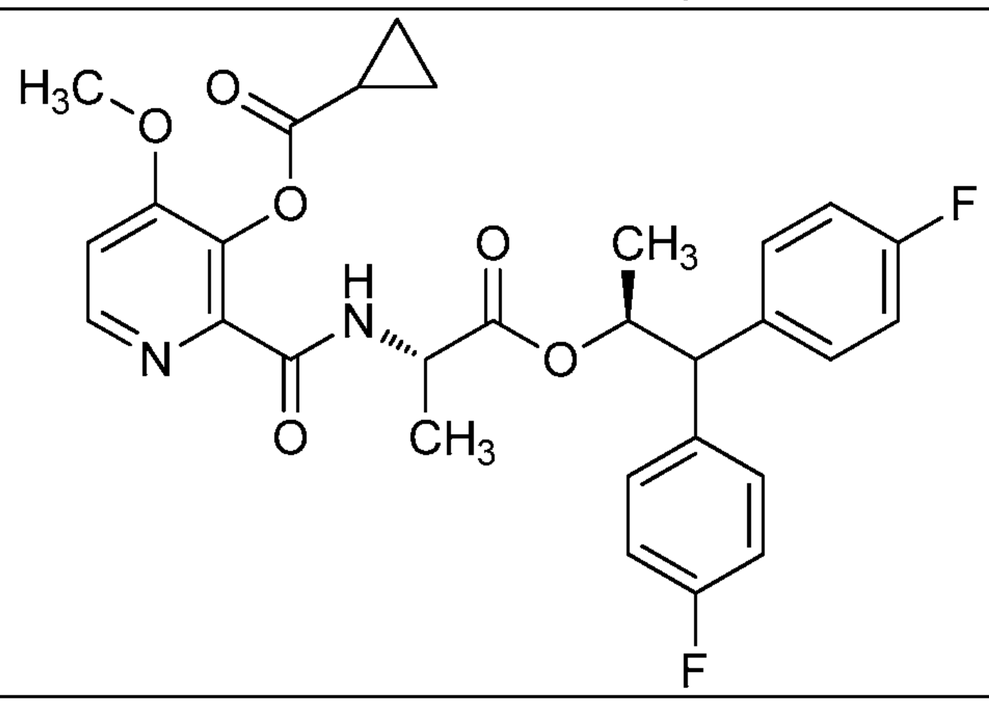
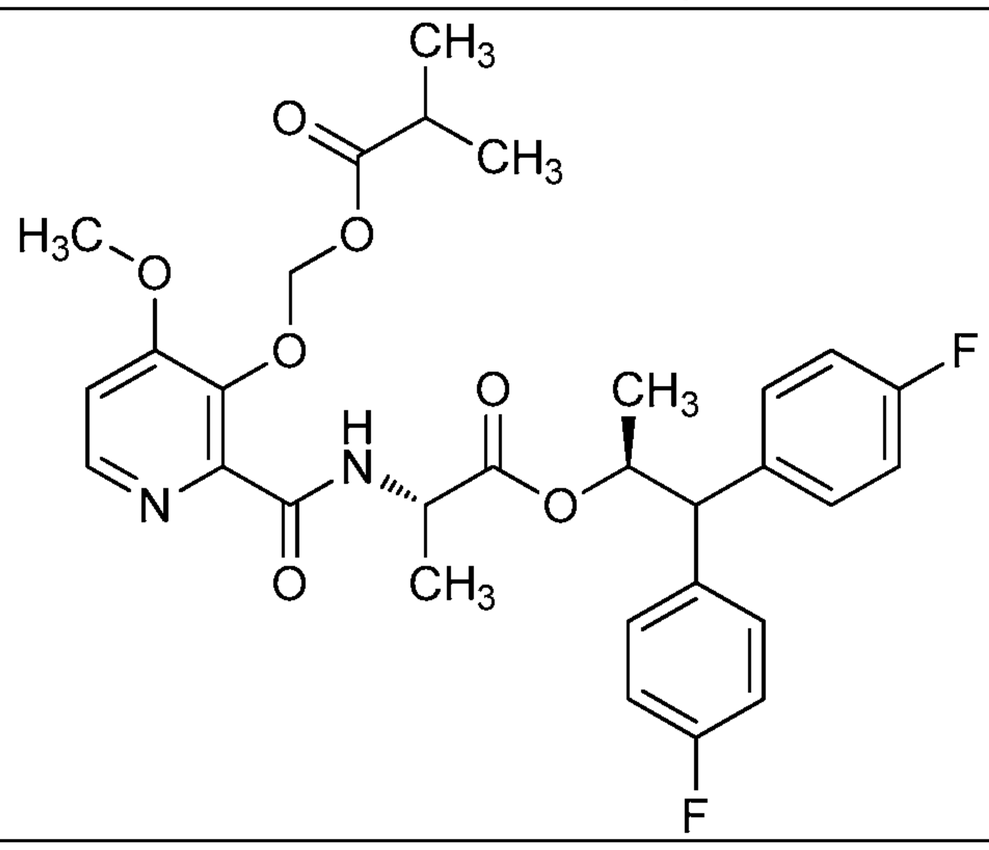
*Cmpd. No.	Structure	Prepared According To Example	Appearance
192		Example 6B	White Foam
193		Example 6B	Sticky Wax
194		Example 6B	White Foam

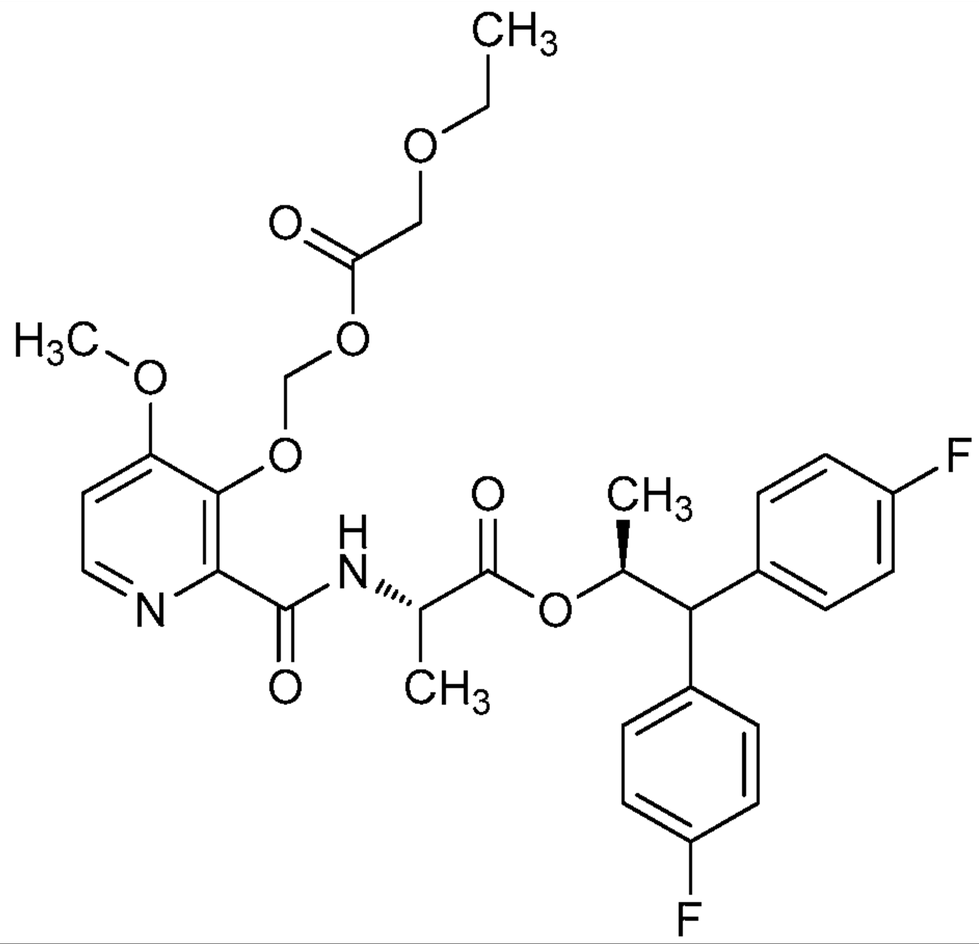
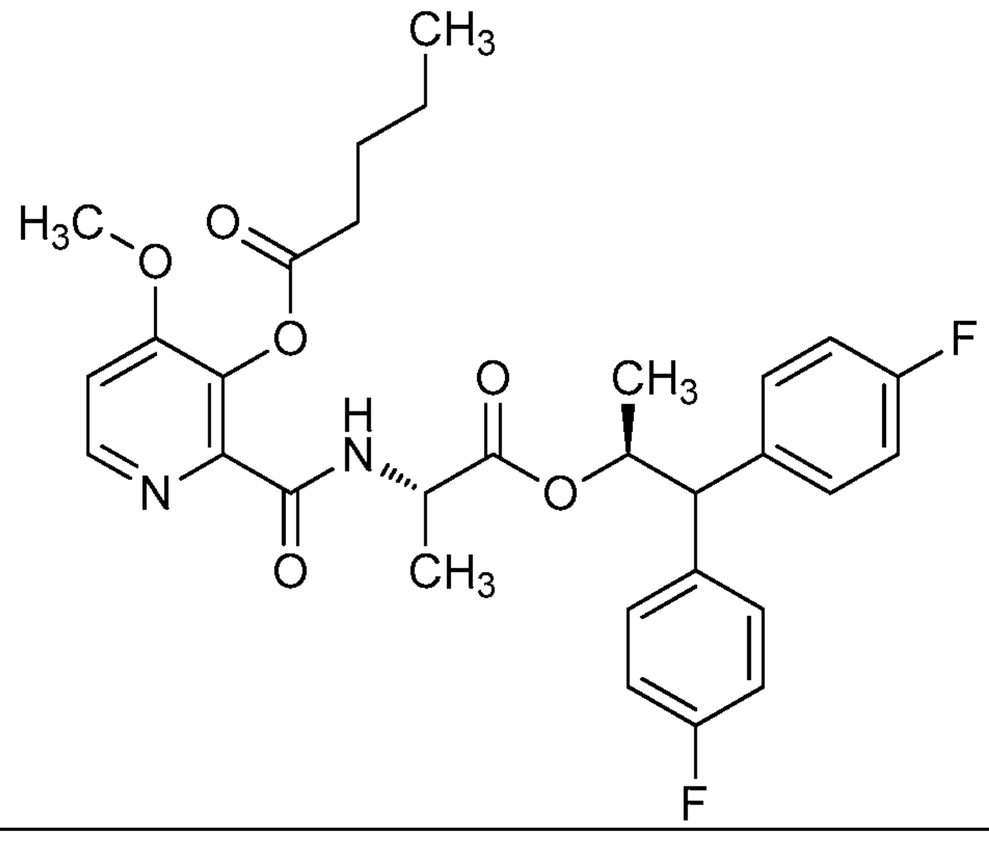
*Cmpd. No.	Structure	Prepared According To Example	Appearance
195		Example 6B	White Foam
196		Example 6B	White Foam
197		Example 6B	White Foam

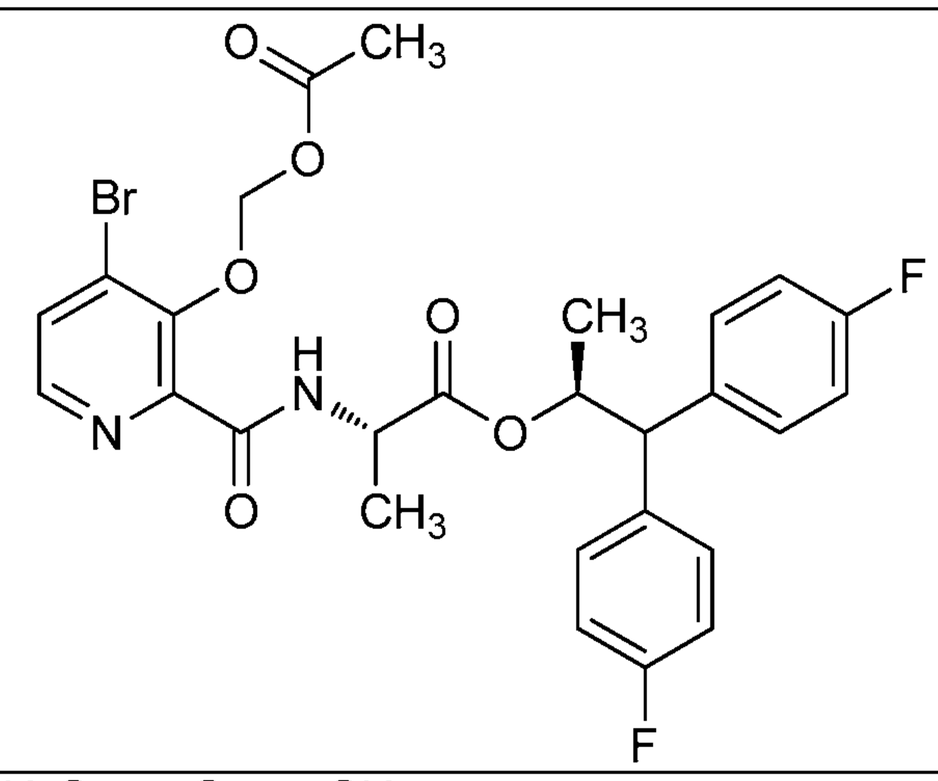
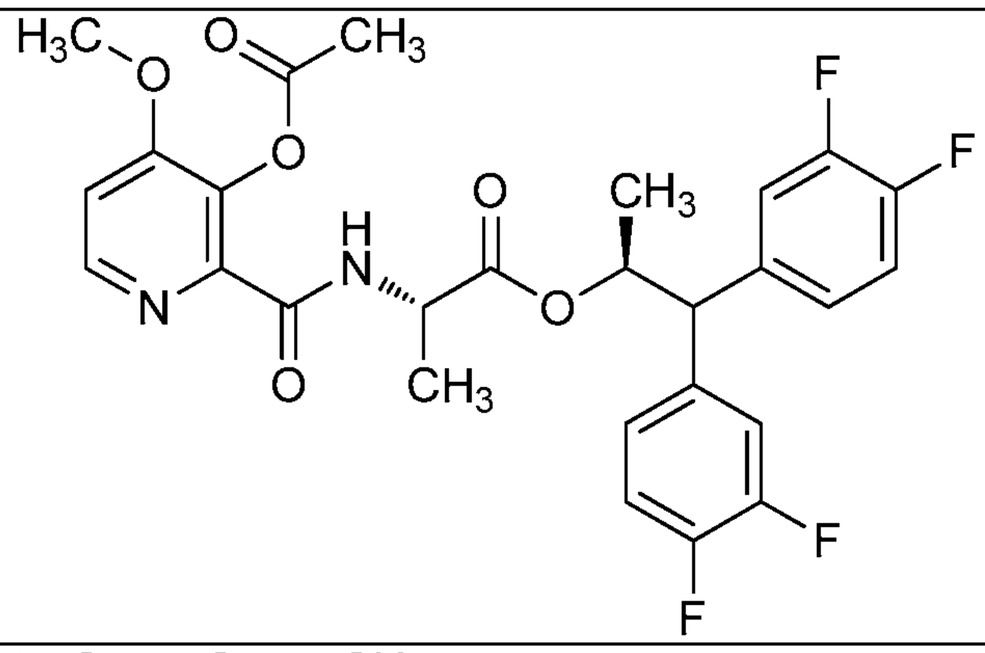
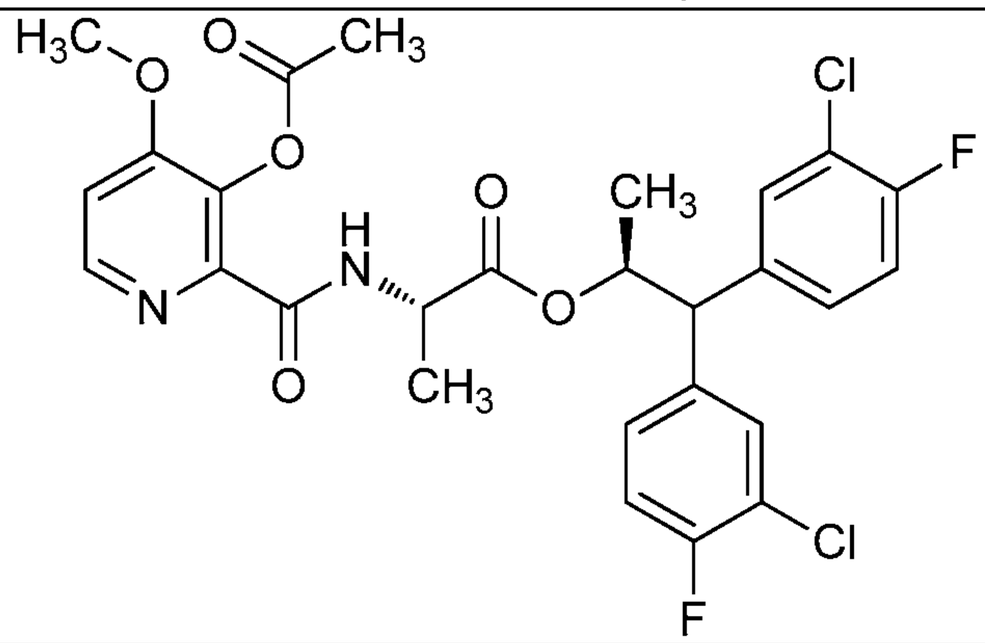
*Cmpd. No.	Structure	Prepared According To Example	Appearance
198		Example 6B	Sticky Wax
199		Example 6B	White Solid
201		Example 6B	White Solid

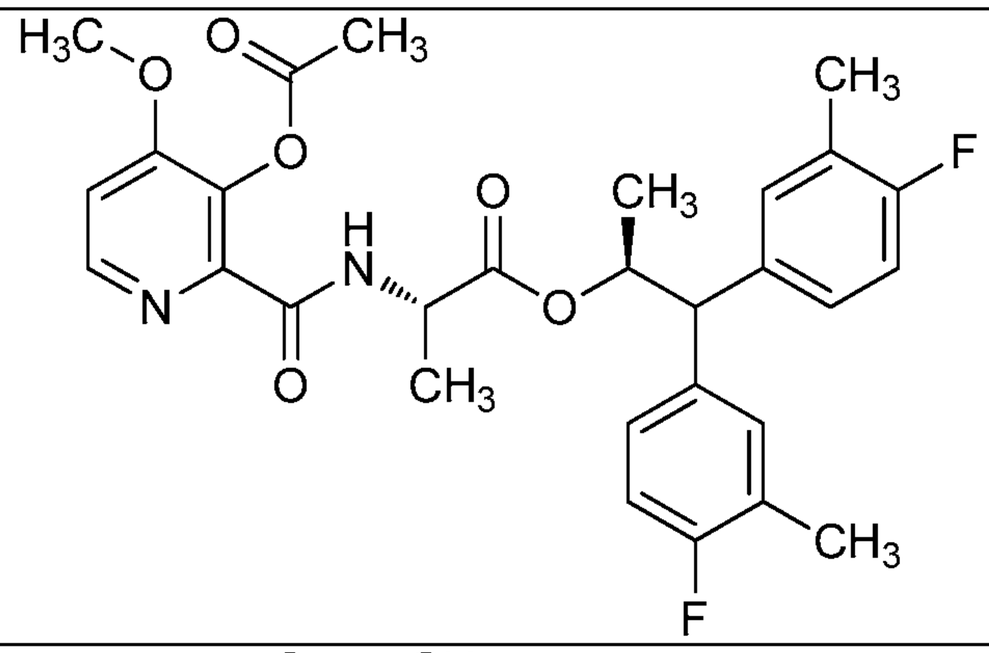
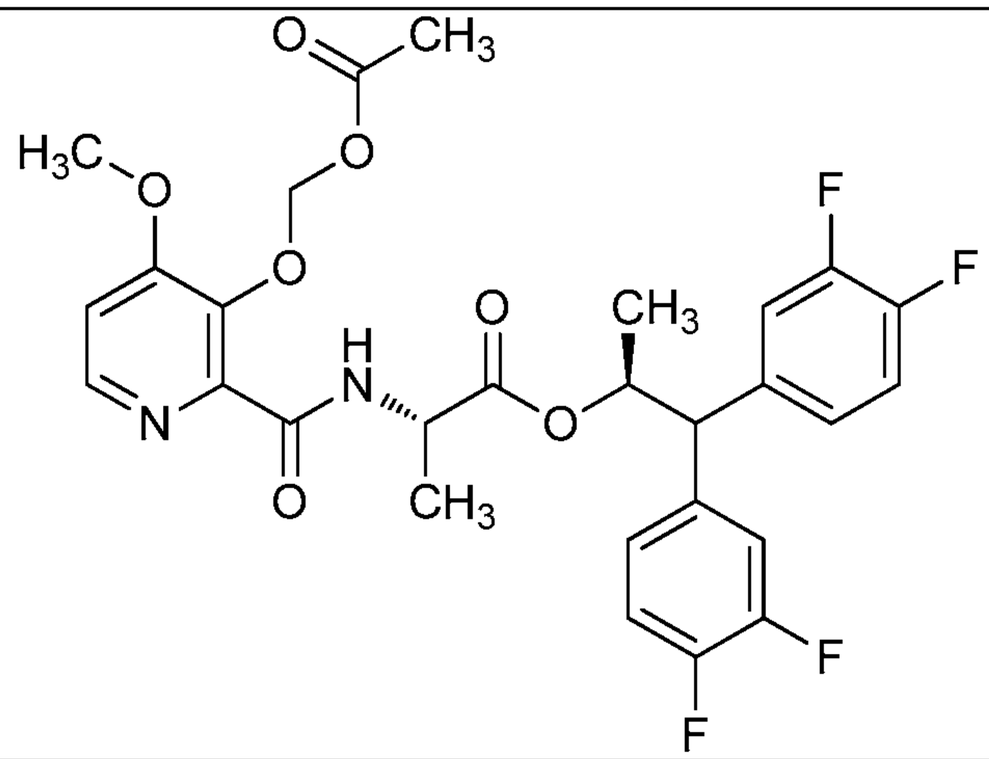
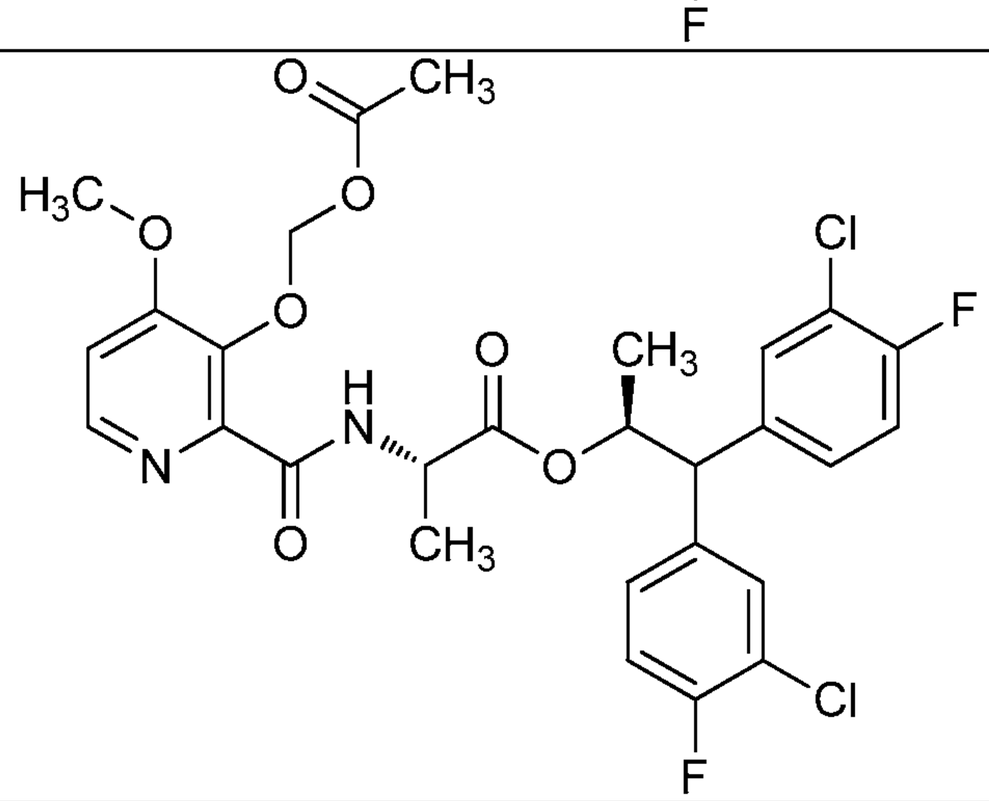
*Cmpd. No.	Structure	Prepared According To Example	Appearance
202		Example 6B	White Solid
203		Example 6B	White Solid
204		Example 6A	White Solid

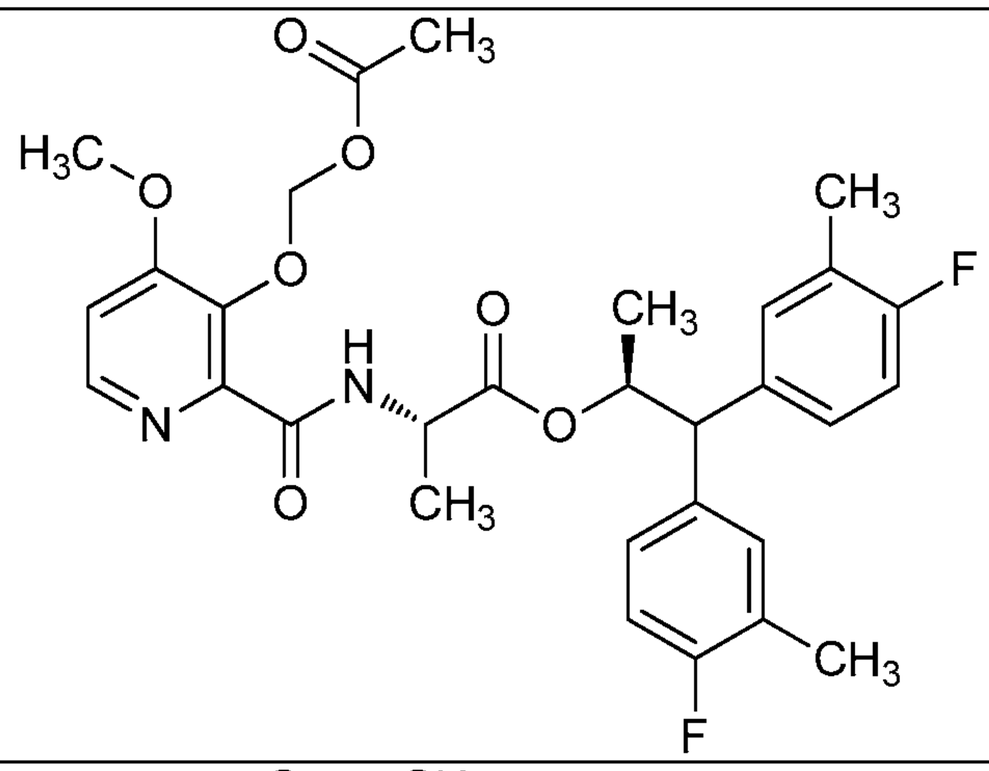
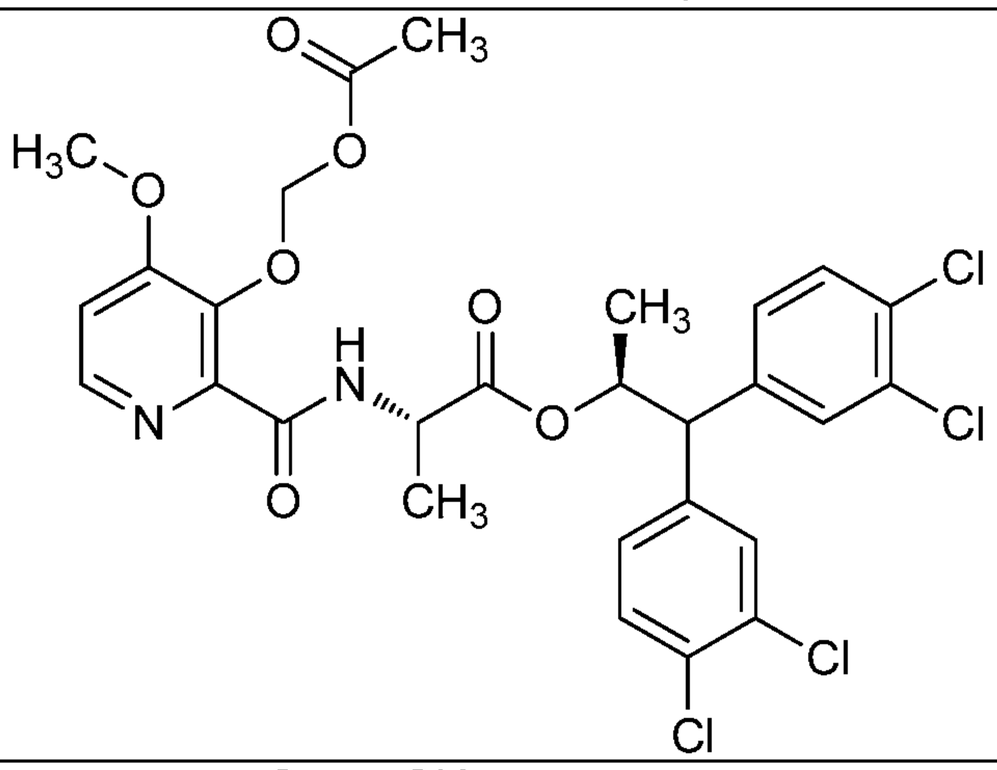
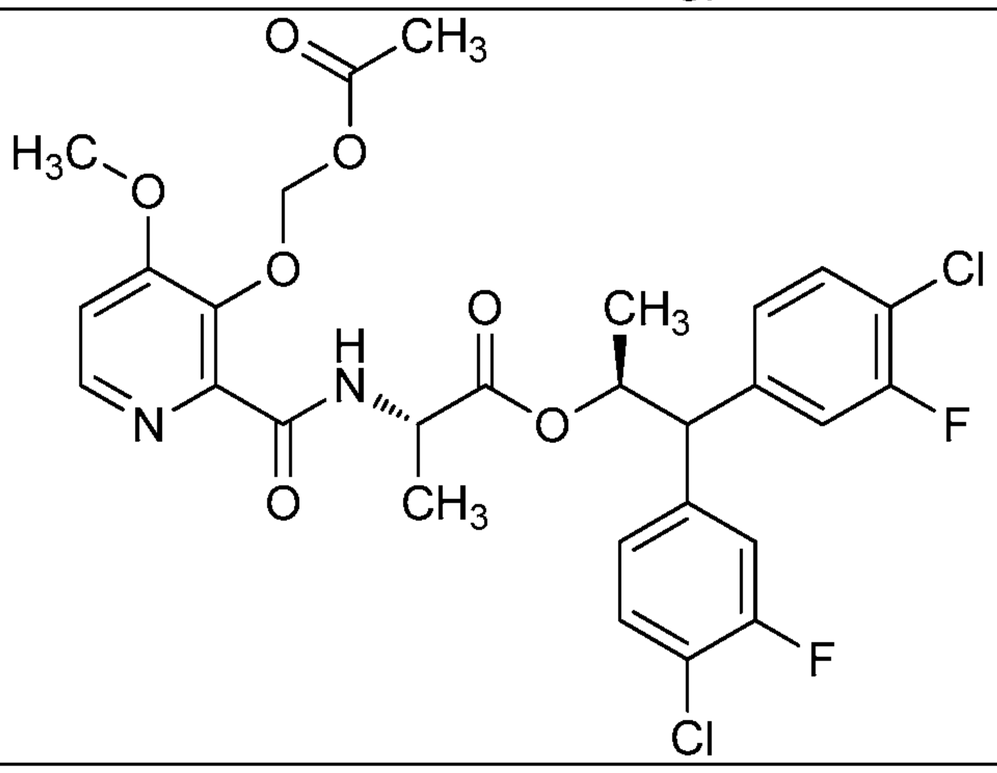
*Cmpd. No.	Structure	Prepared According To Example	Appearance
206		Example 6A	White Solid
207		Example 6A	White Solid
208		Example 6A	Clear Colorless Oil

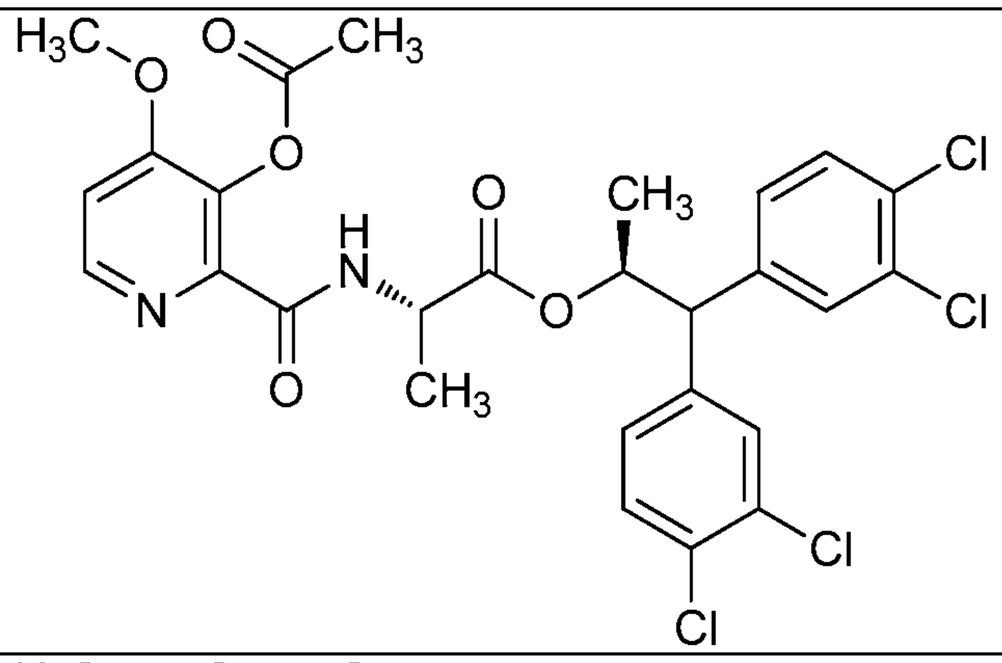
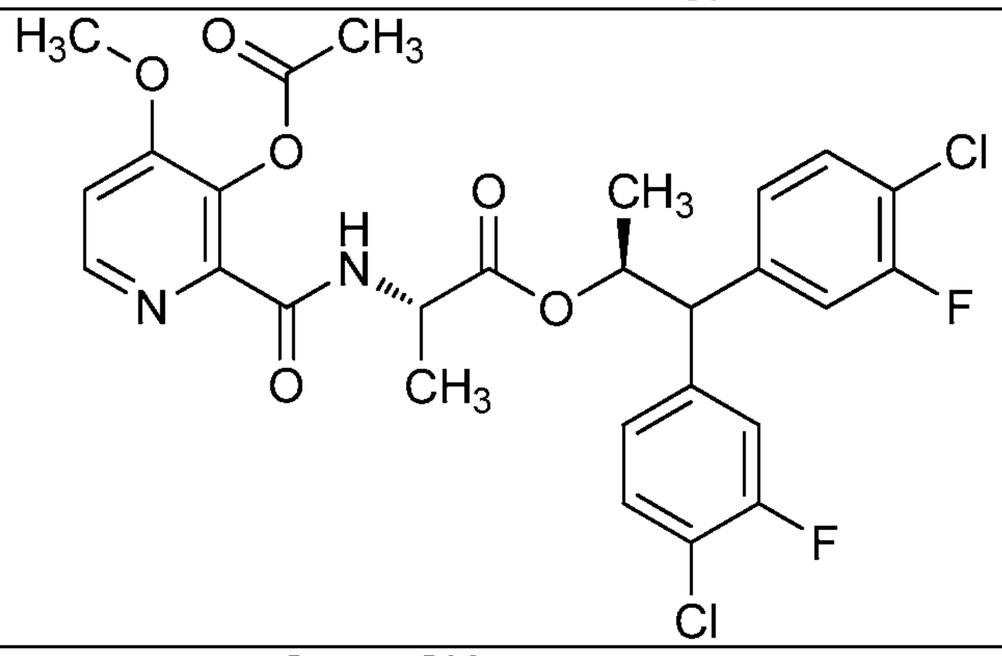
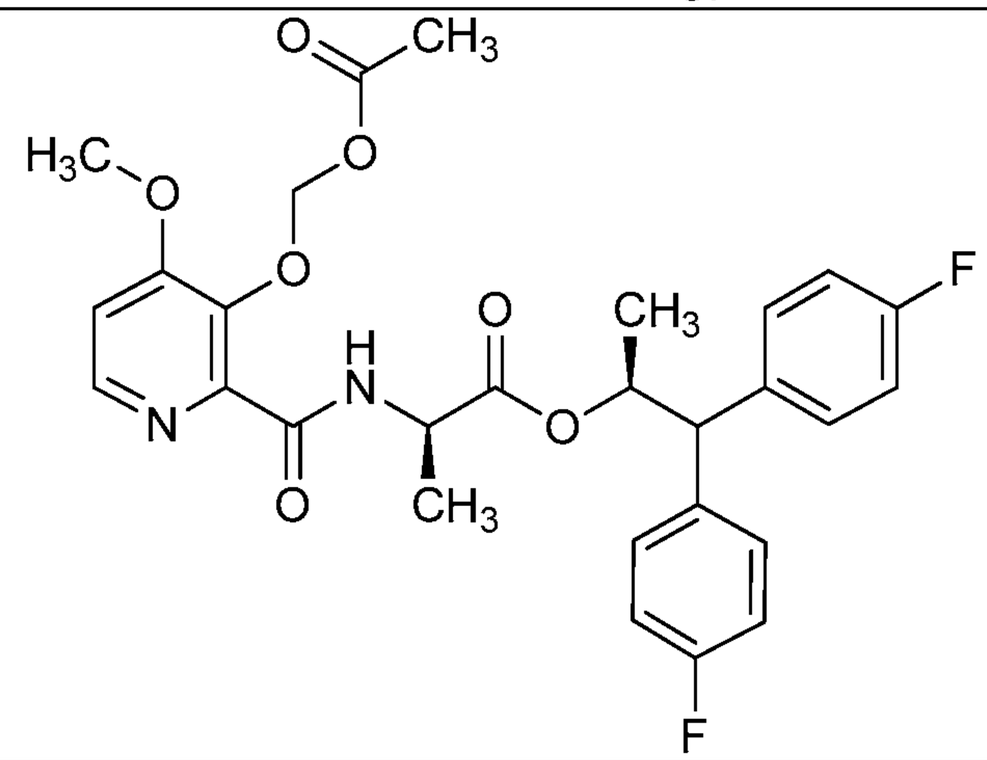
*Cmpd. No.	Structure	Prepared According To Example	Appearance
209		Example 6A	Slightly Cloudy Colorless Oil
210		Example 6A	Slightly Cloudy Colorless Oil
211		Example 6C	Clear Colorless Oil

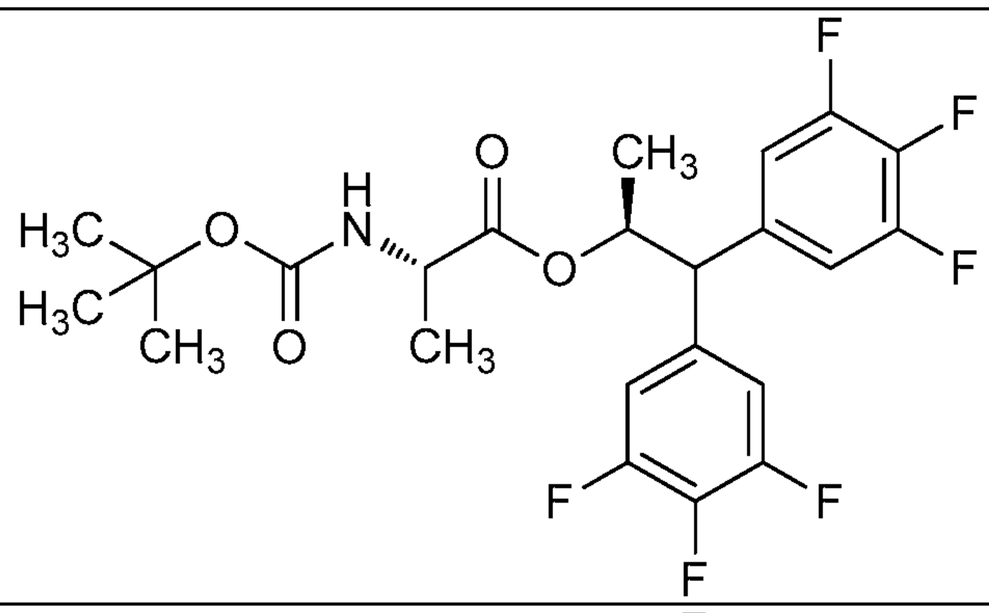
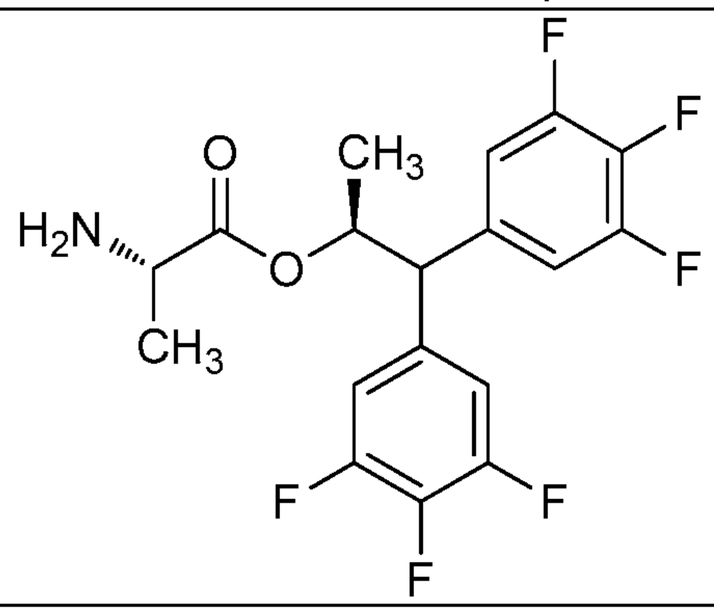
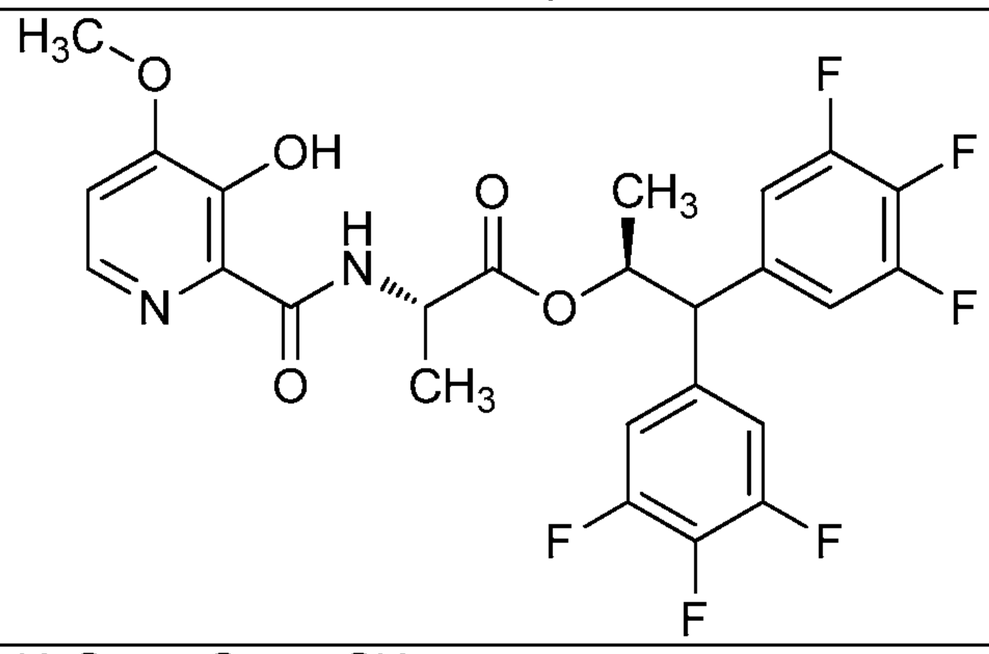
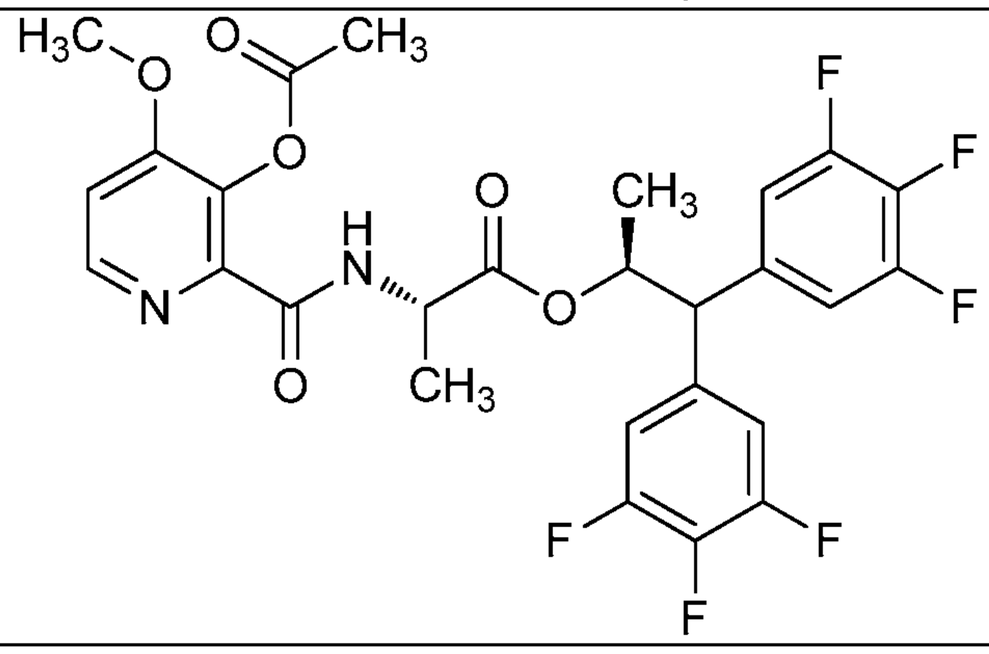
*Cmpd. No.	Structure	Prepared According To Example	Appearance
212		Example 6C	Colorless Clear Film And Opaque Oil
213		Example 6A	Clear Colorless Viscous Oil And Semi-Solid

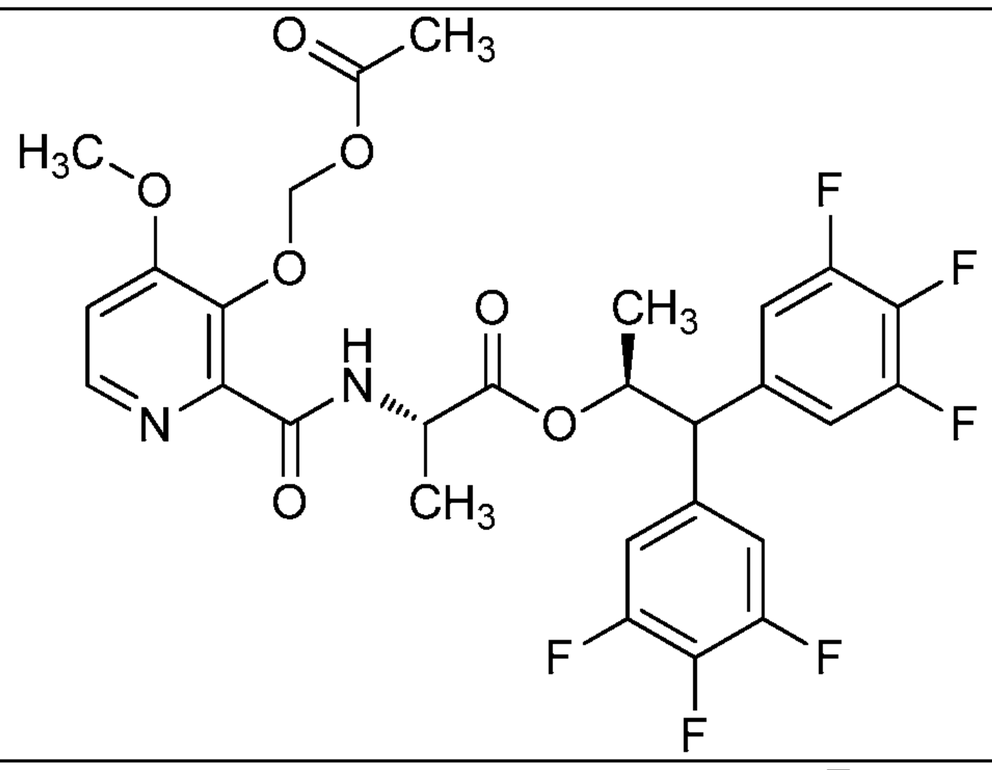
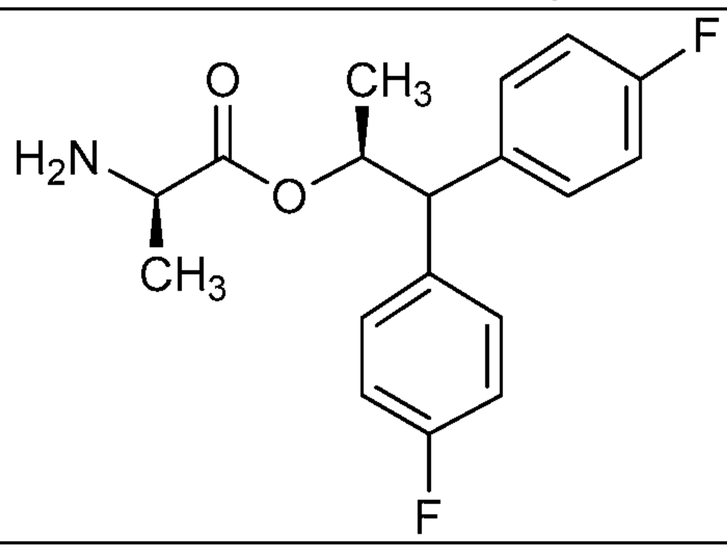
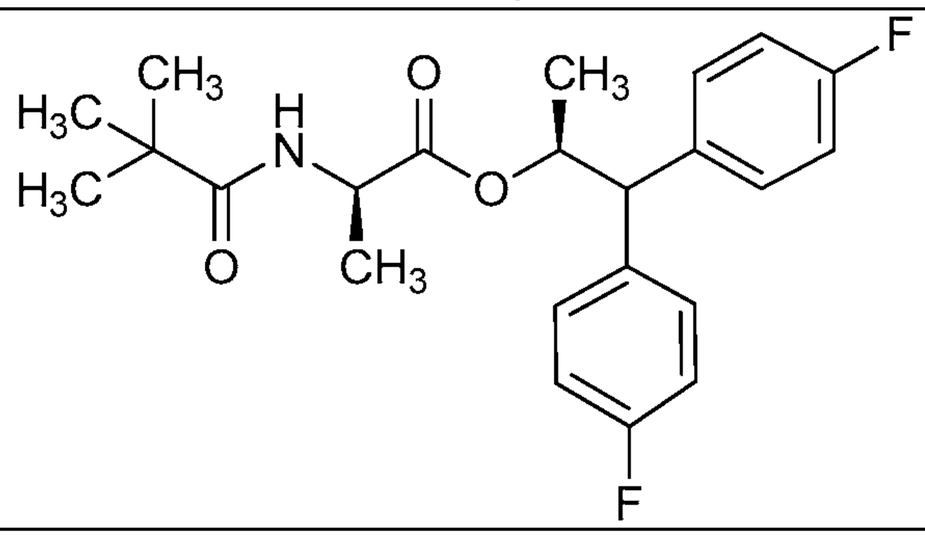
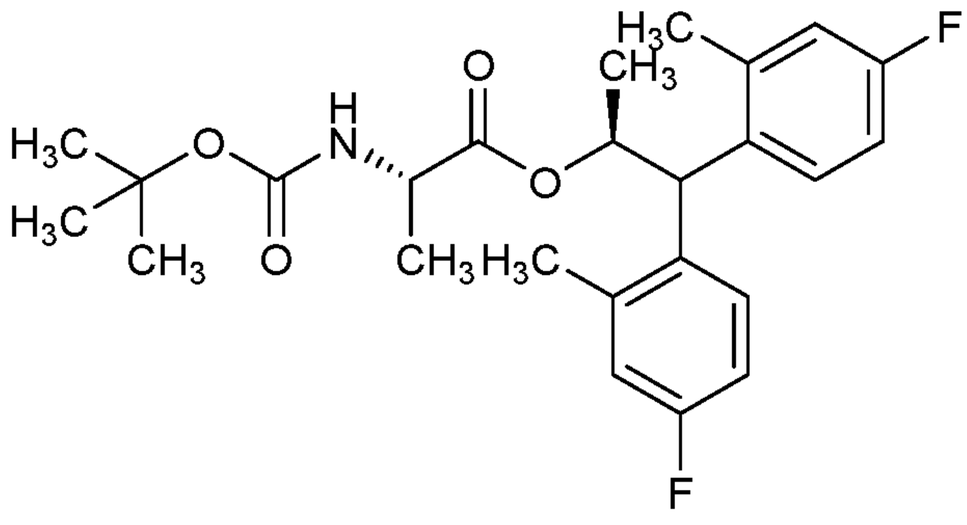
*Cmpd. No.	Structure	Prepared According To Example	Appearance
214		Example 6B	Clear, Colorless Oil
215		Example 6A	Pale Yellow Oil
216		Example 6A	Pale Yellow Oil

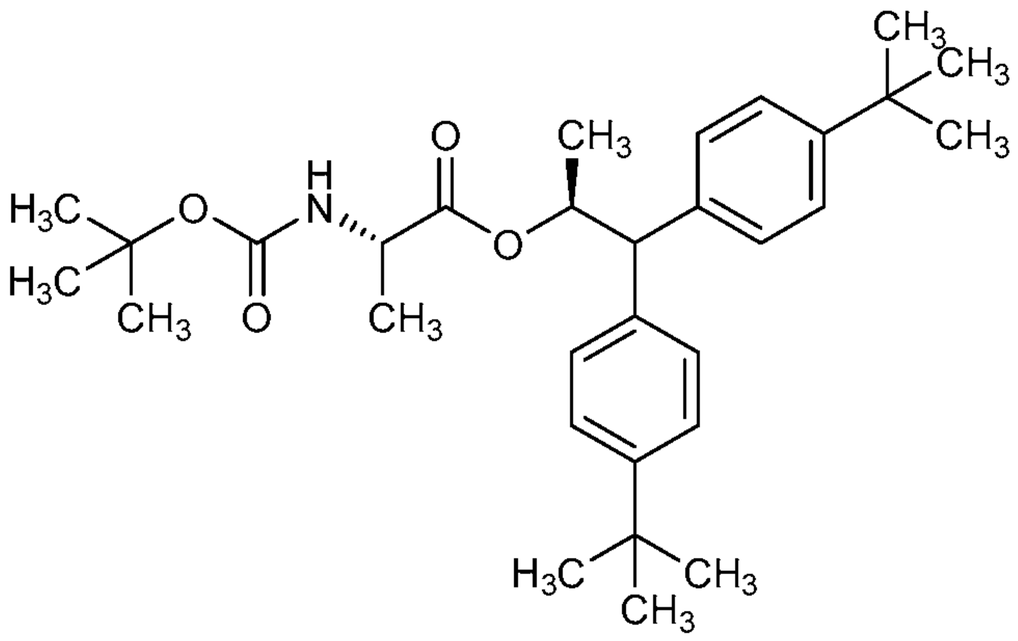
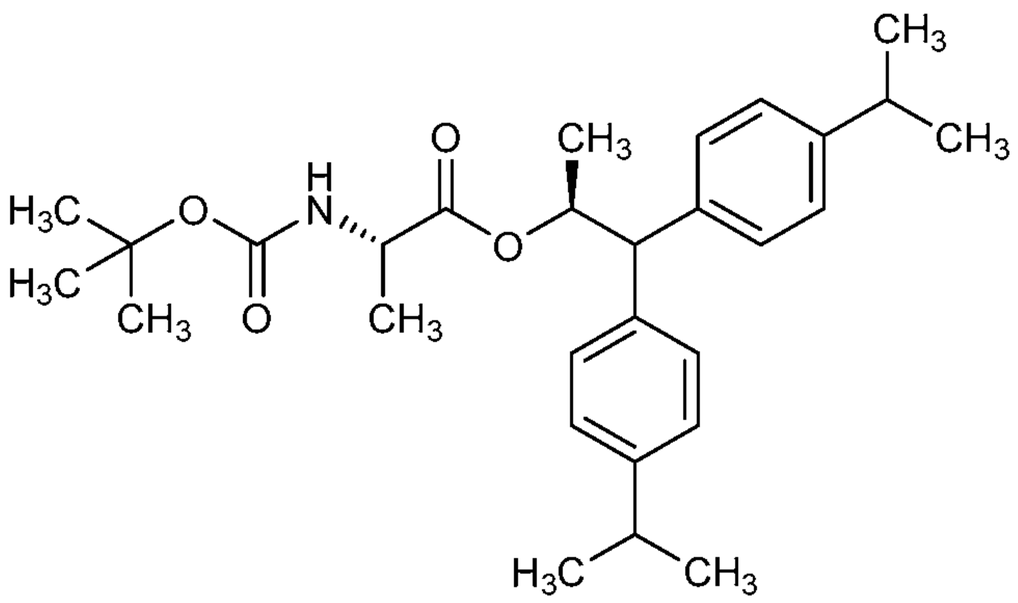
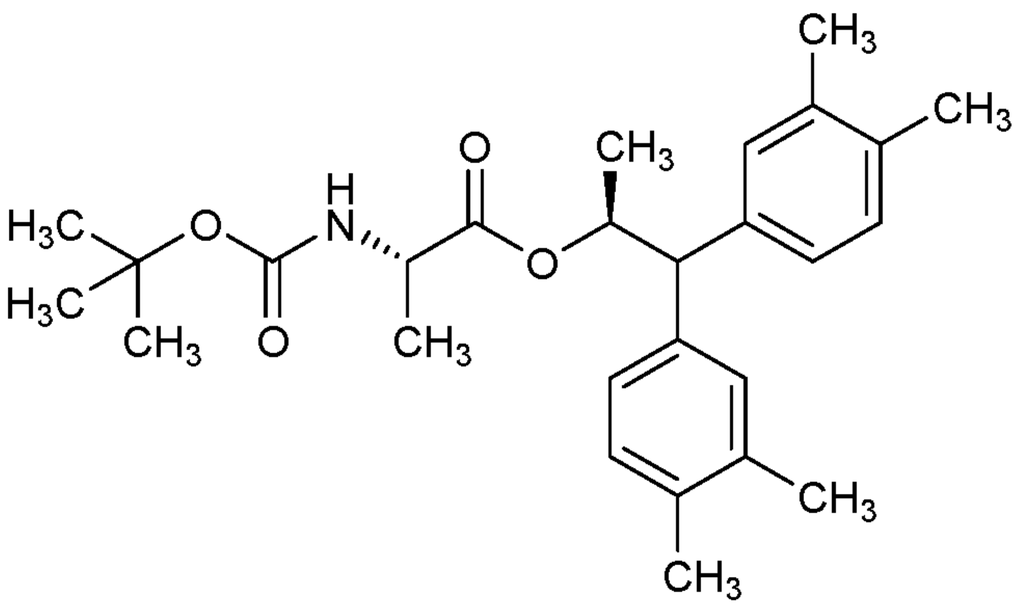
*Cmpd. No.	Structure	Prepared According To Example	Appearance
217		Example 6A	Pale Yellow Oil
218		Example 6B	Pale Yellow Oil
219		Example 6B	Pale Yellow Oil

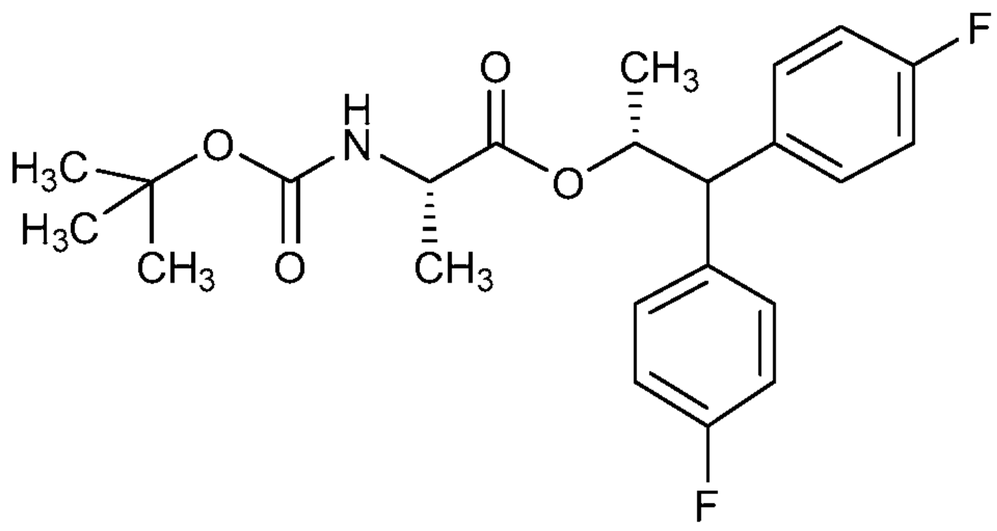
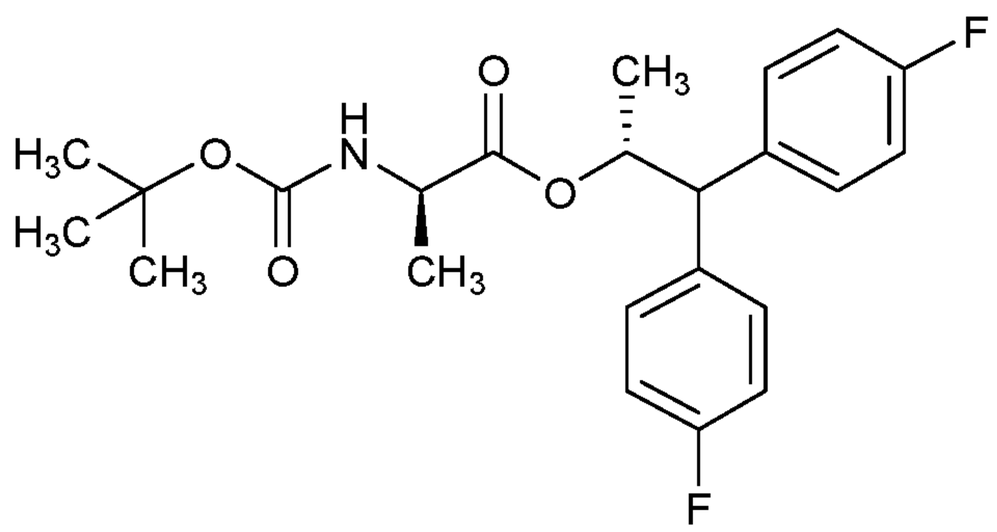
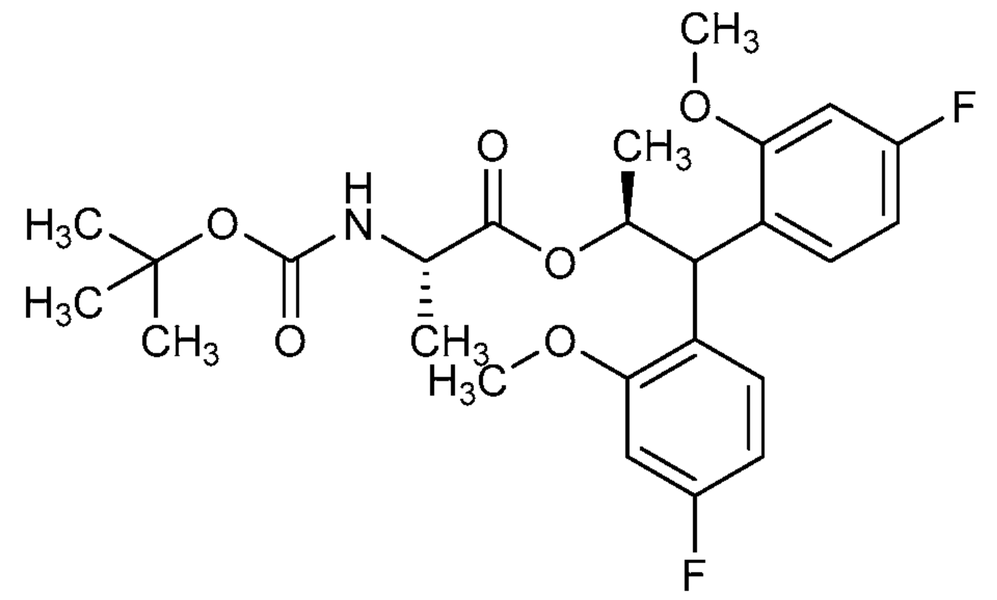
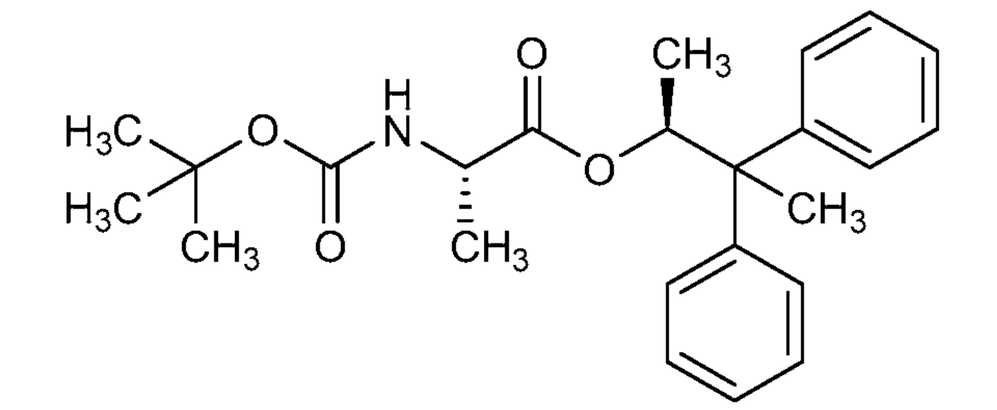
*Cmpd. No.	Structure	Prepared According To Example	Appearance
220		Example 6B	Pale Yellow Oil
221		Example 6B	White Foam
222		Example 6B	White Foam

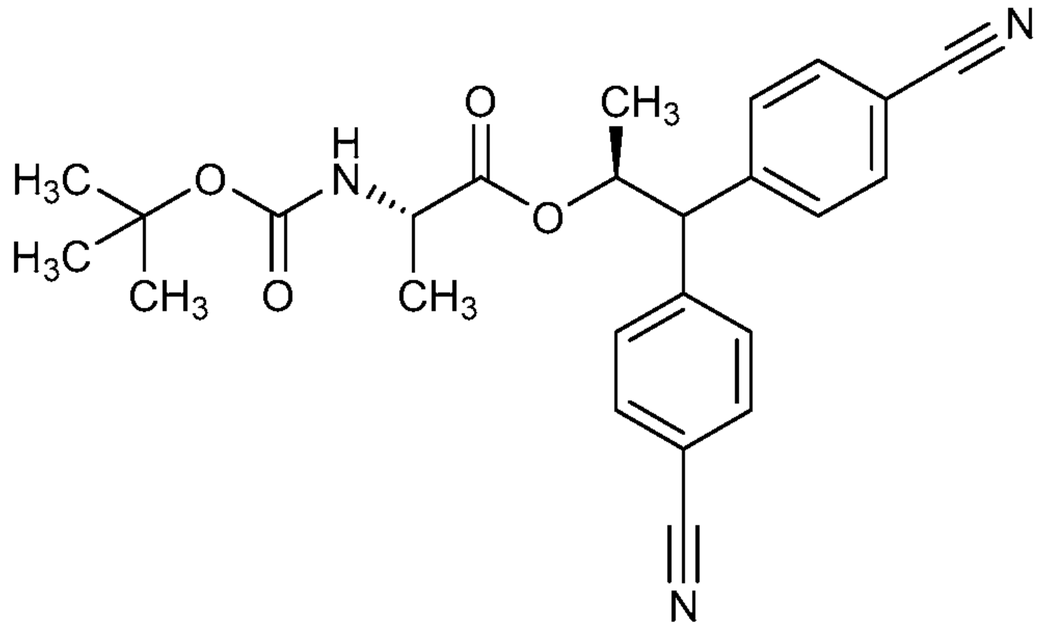
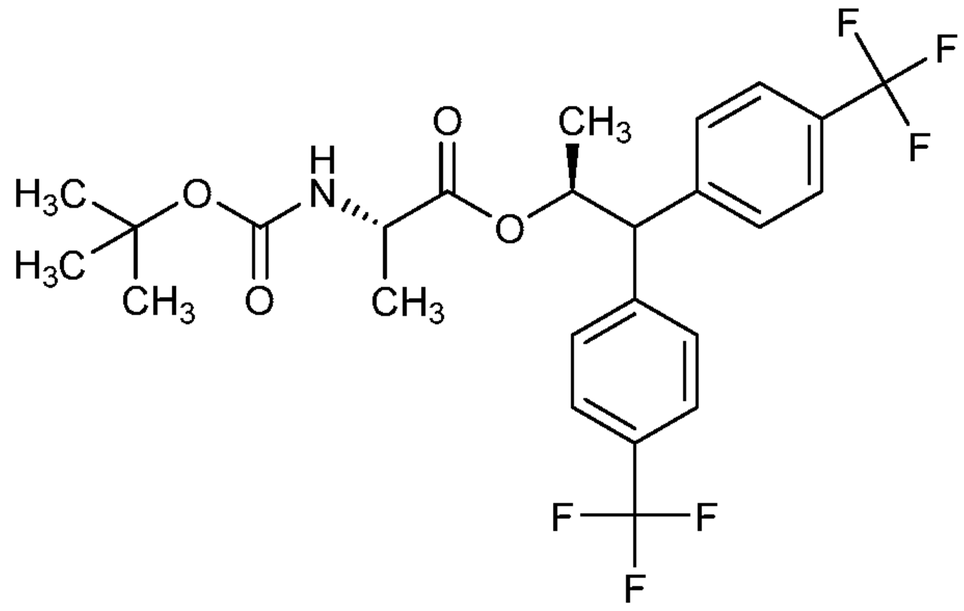
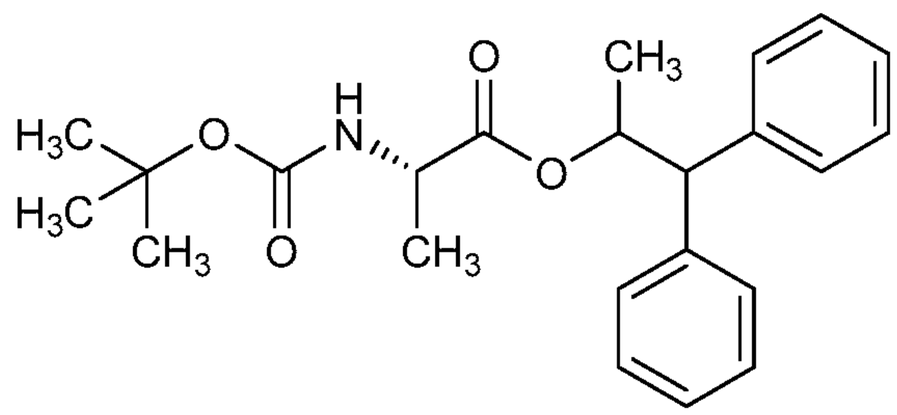
*Cmpd. No.	Structure	Prepared According To Example	Appearance
223		Example 6A	White Foam
224		Example 6A	White Foam
225		Example 6B	Slightly Opaque Colorless Oil

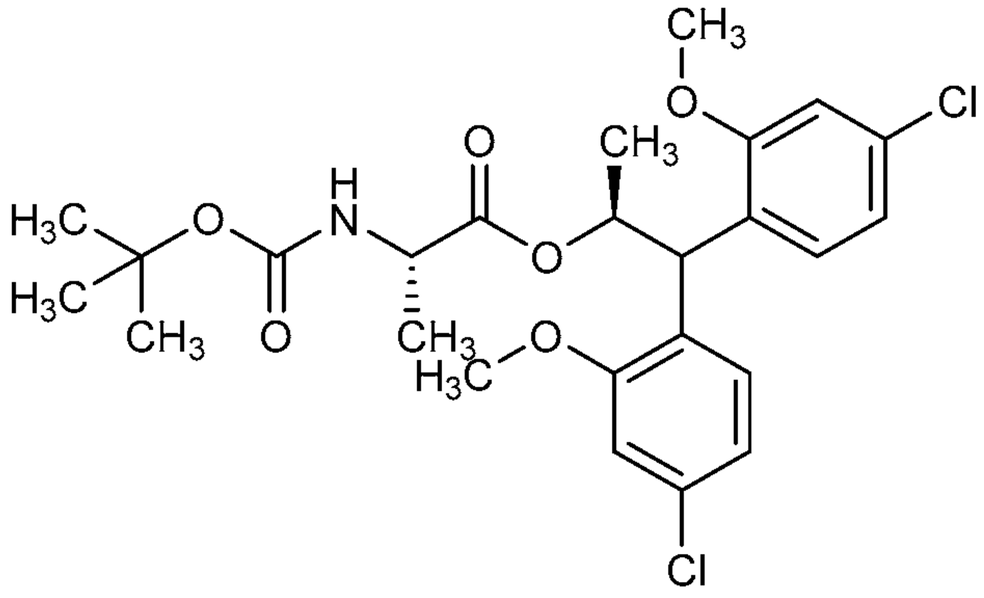
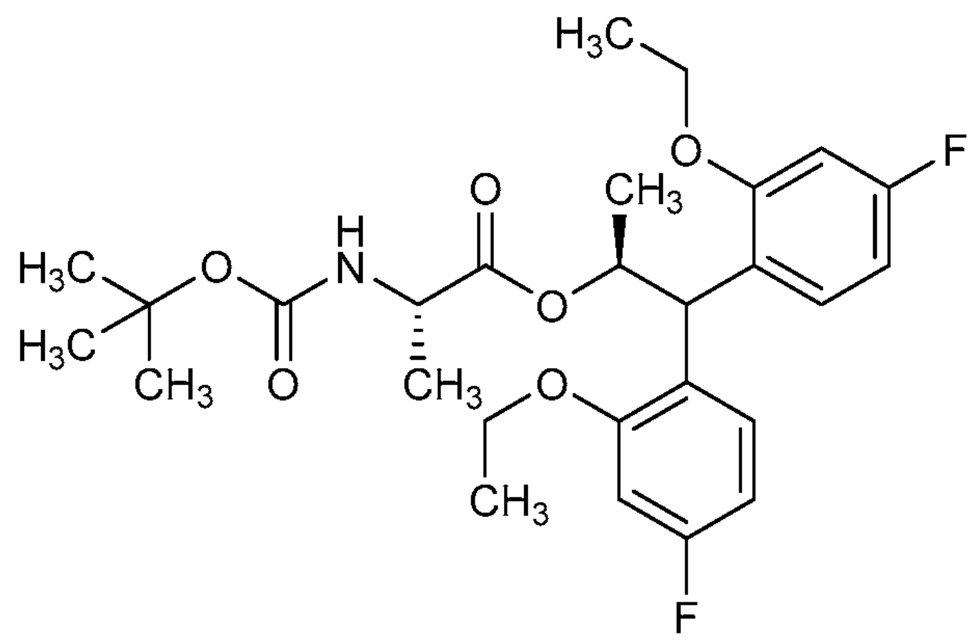
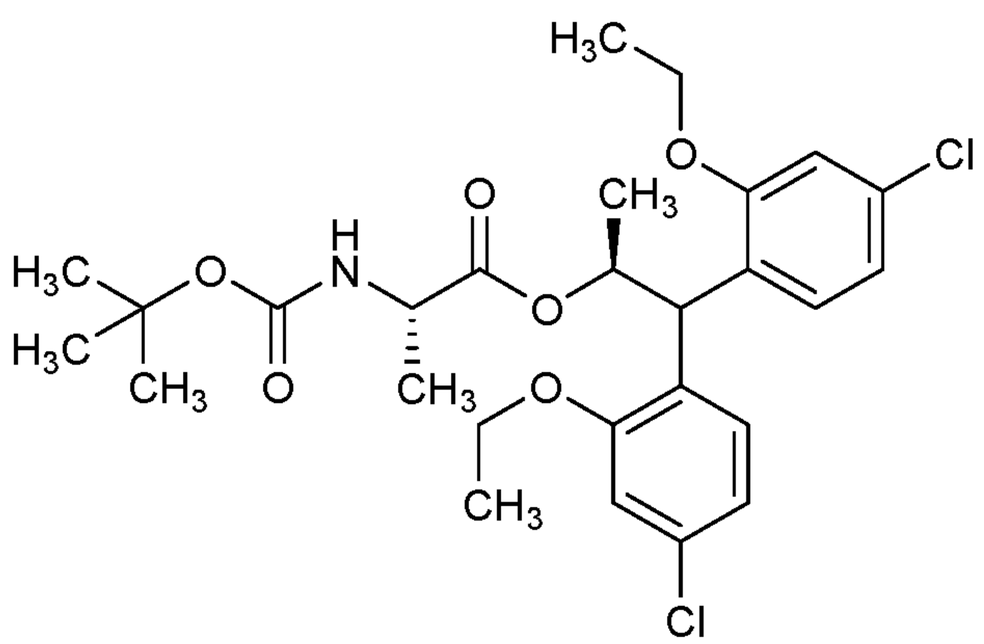
*Cmpd. No.	Structure	Prepared According To Example	Appearance
226		Example 1; Example 2D, Steps 1-2; Example 3A; Example 4A	White Semi-Solid
227		Example 5, Step 1	White Glass
228		Example 5, Step 2	Colorless Foam
229		Example 6A	Clear, Colorless Oil

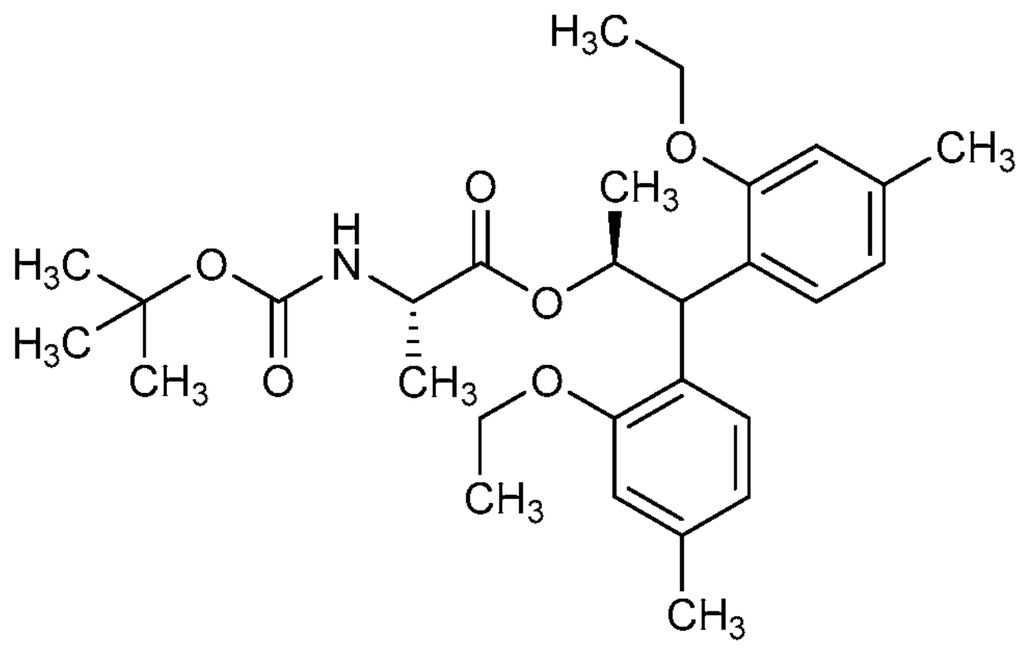
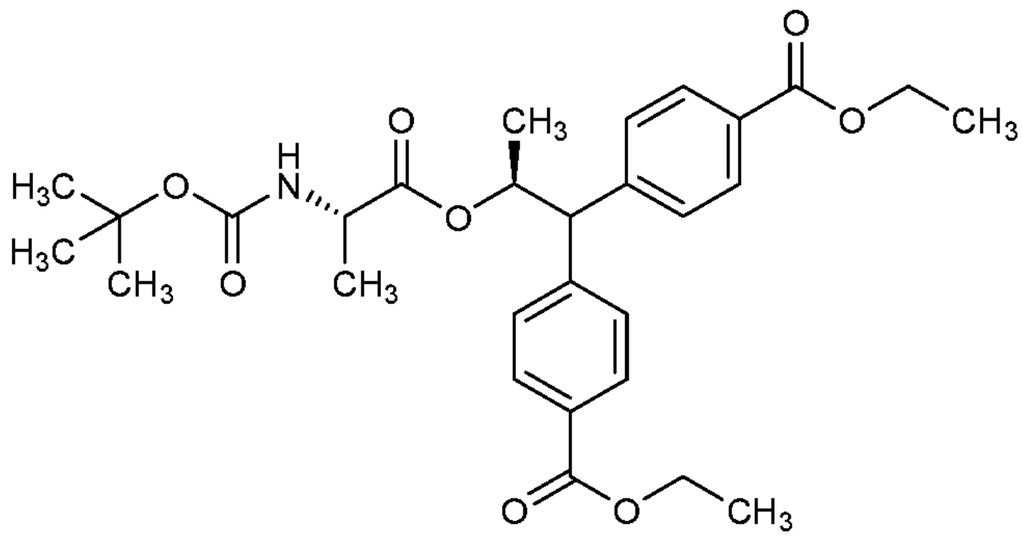
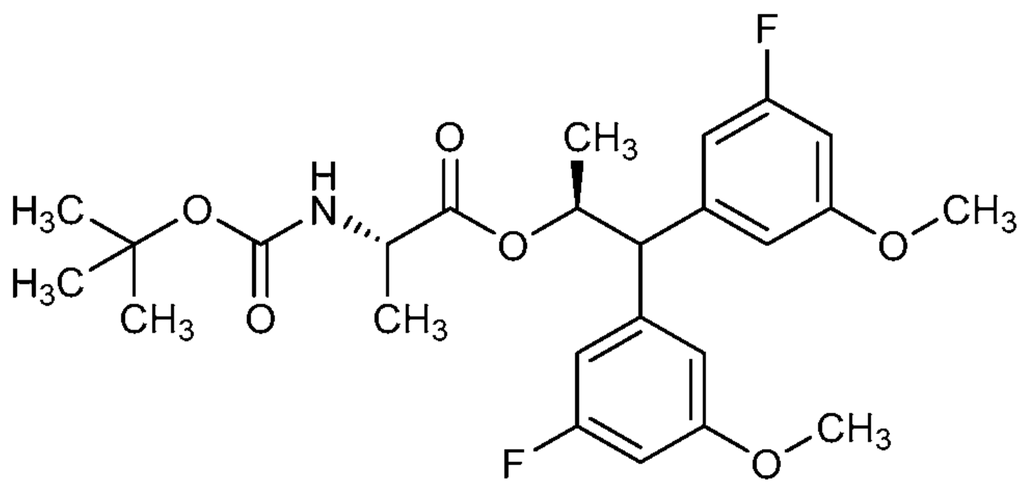
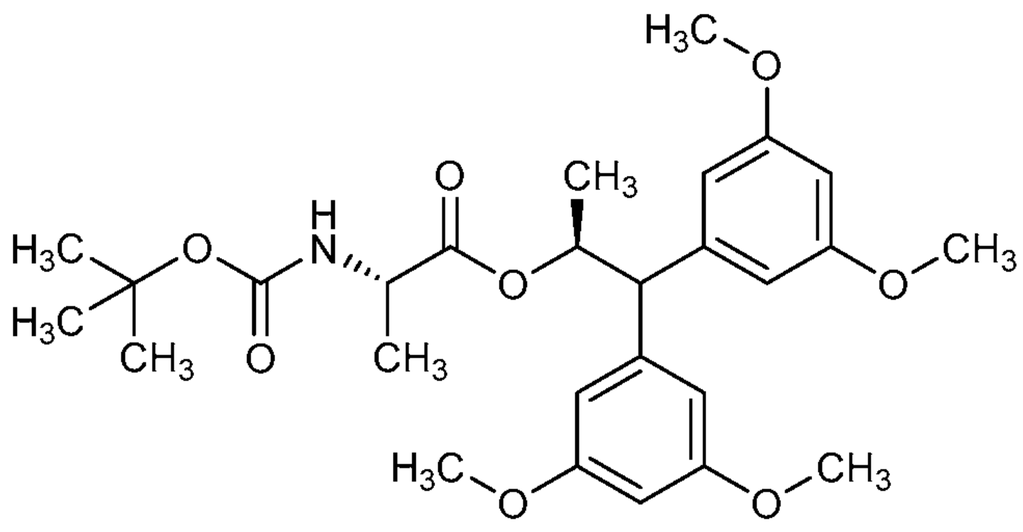
*Cmpd. No.	Structure	Prepared According To Example	Appearance
230		Example 6B	Clear, Colorless Oil
232		Example 5, Step 1	White Semi-Solid
233		Example 1; Example 2A; Example 3A; Example 4A	Clear, Colorless Viscous Oil
234		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil

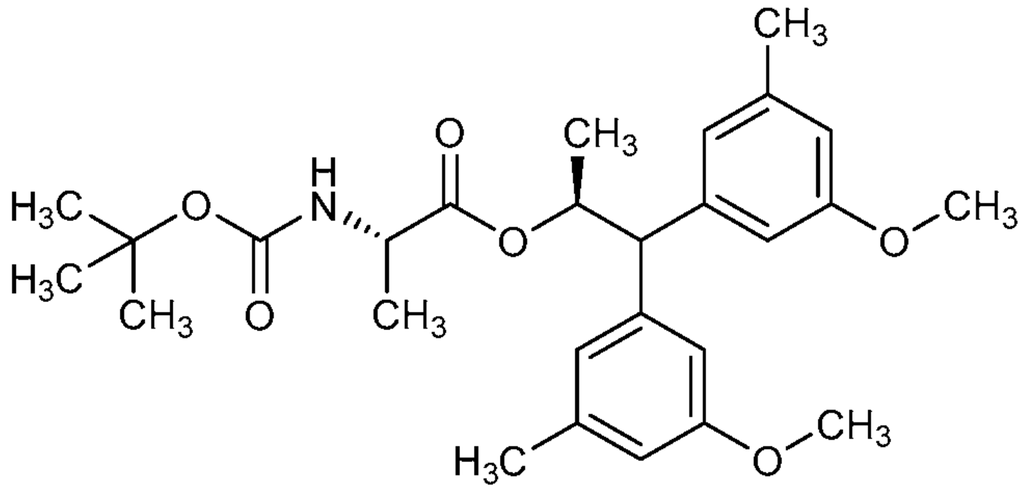
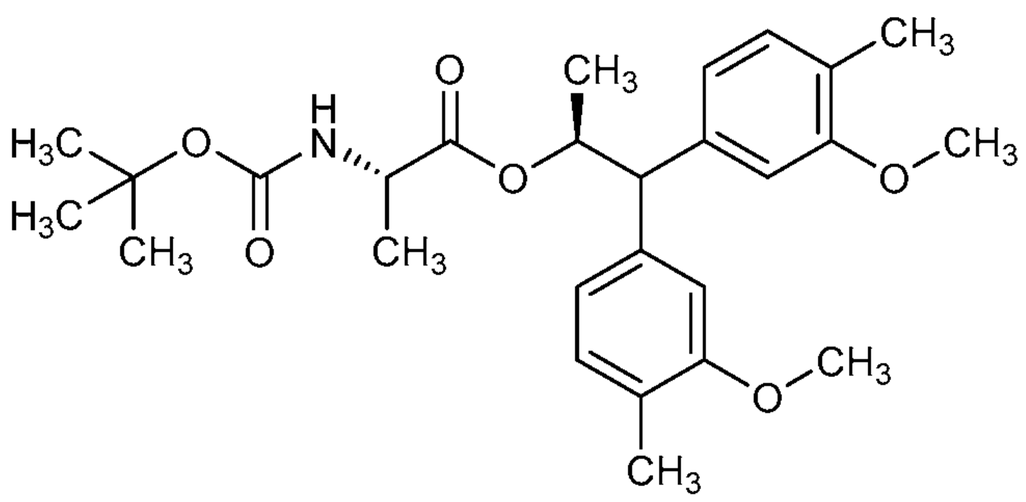
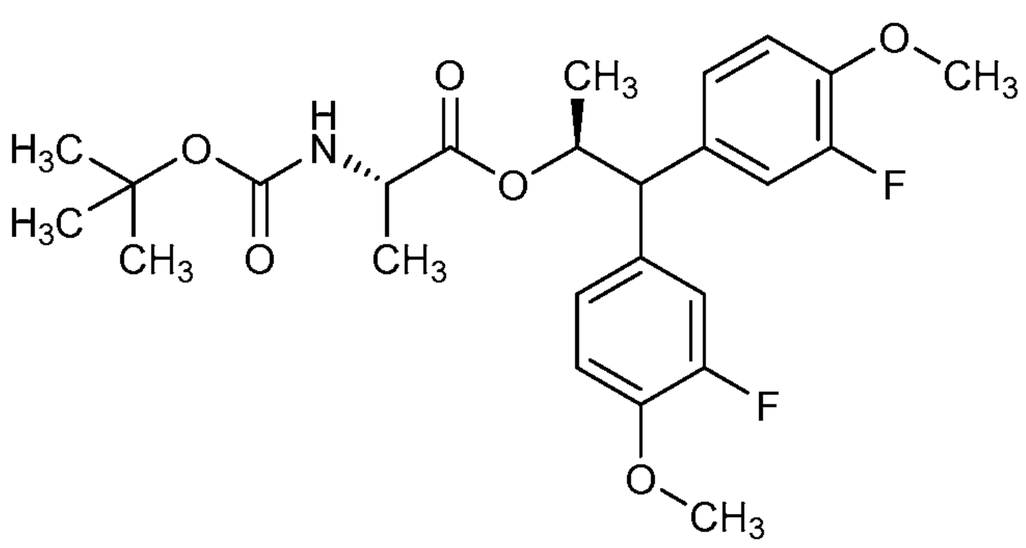
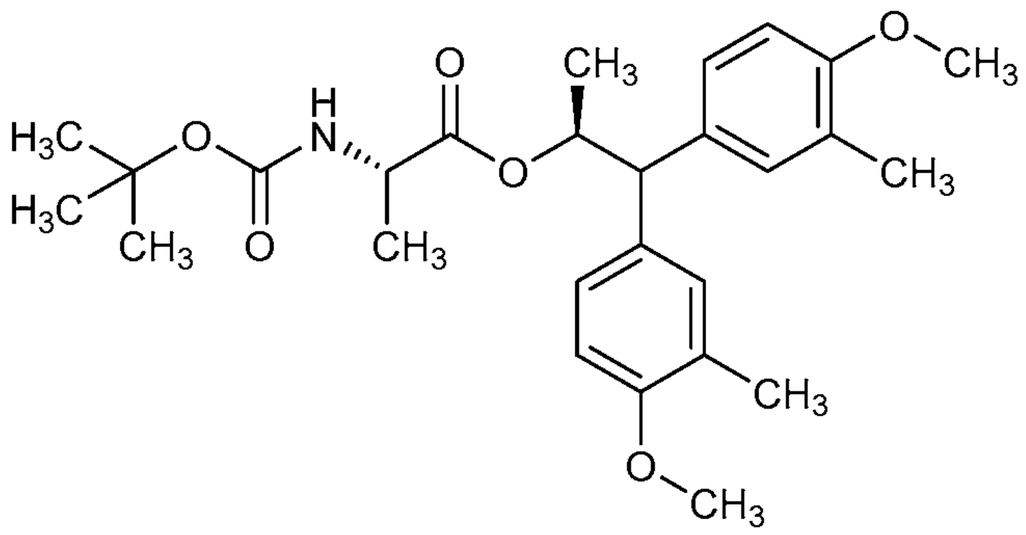
*Cmpd. No.	Structure	Prepared According To Example	Appearance
235		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil
236		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil
237		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil

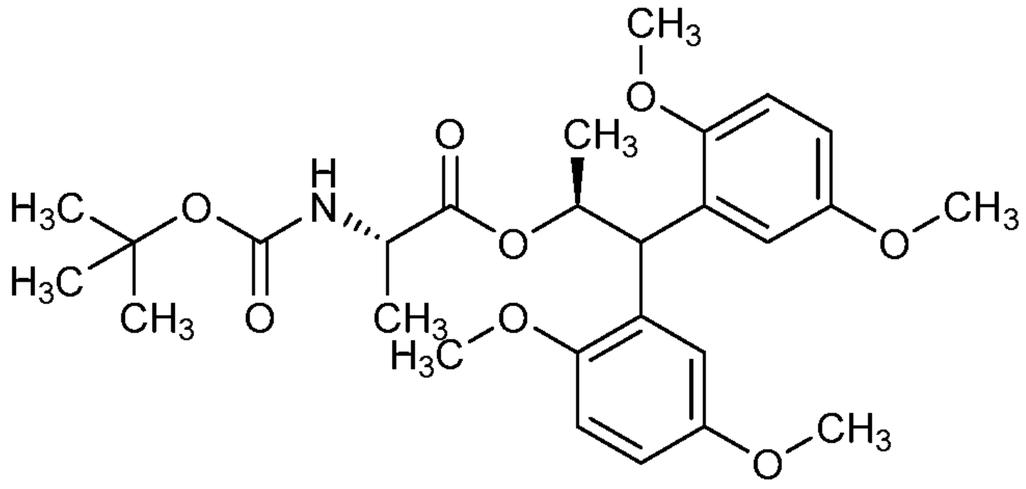
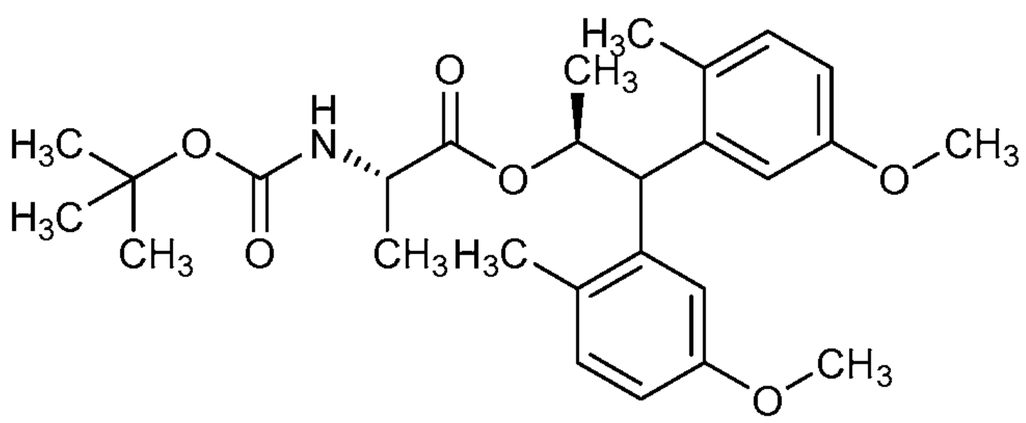
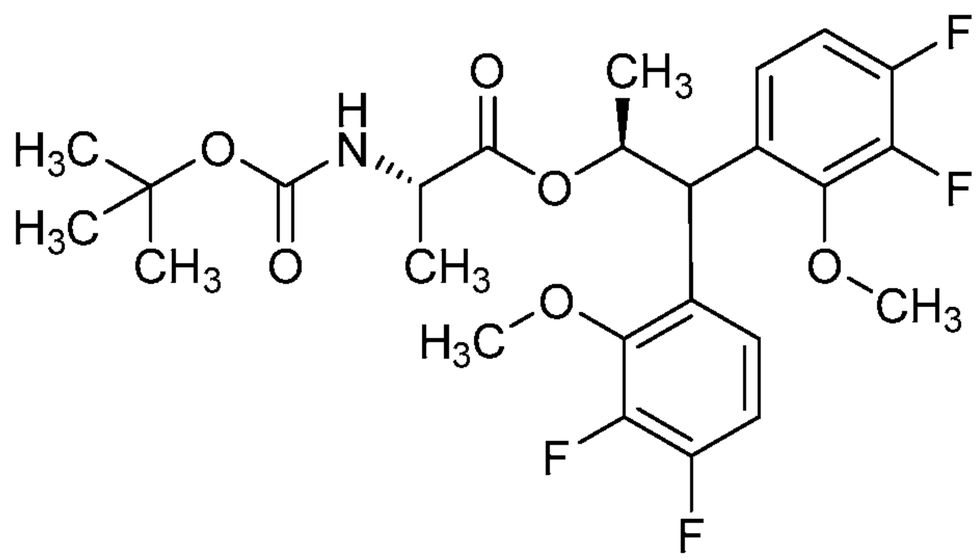
*Cmpd. No.	Structure	Prepared According To Example	Appearance
238		Example 1; Example 2A; Example 3A; Example 4A.	Slightly Cloudy Colorless Viscous Oil
239		Example 1; Example 2A; Example 3A; Example 4A.	Slightly Cloudy Colorless Viscous Oil
240		Example 1; Example 2A; Example 3A; Example 4A.	White Foam
241		Example 3H Steps 1-2; Example 4A.	Colorless Oil

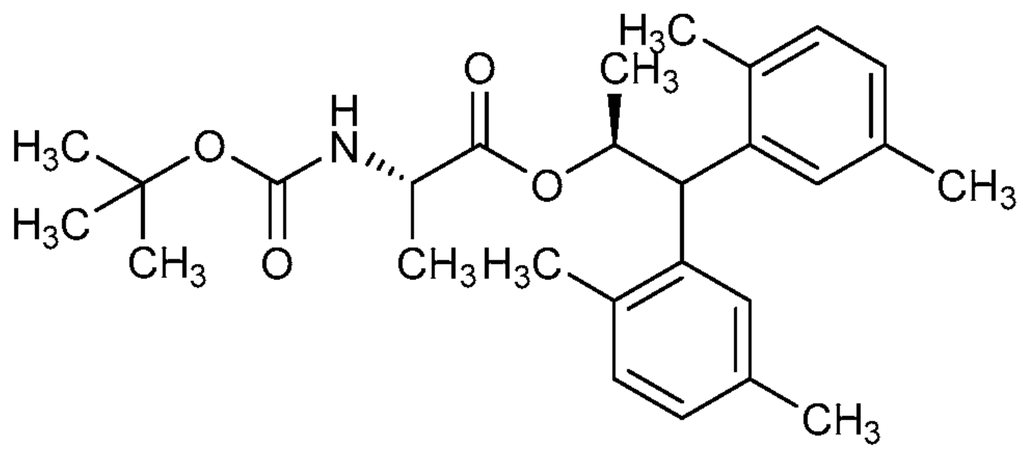
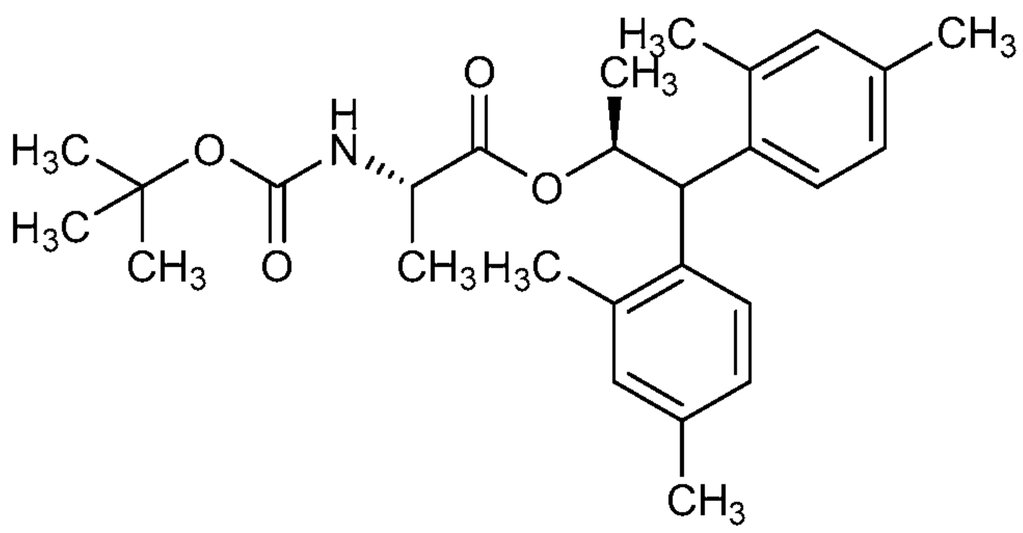
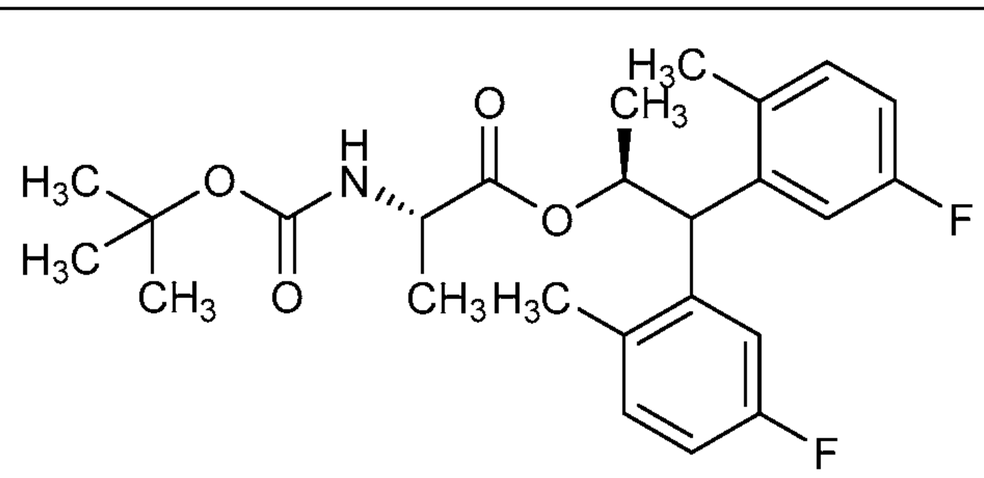
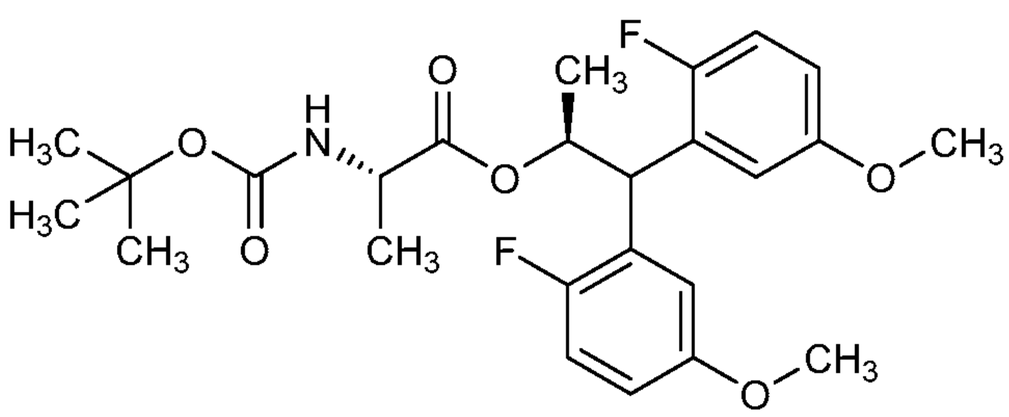
*Cmpd. No.	Structure	Prepared According To Example	Appearance
242		Example 3G, Steps 1 and 2; Example 4A	Colorless Oil
243		Example 3G, Steps 1 and 2; Example 4A	Colorless Oil
244		Example 4A	Colorless Oil

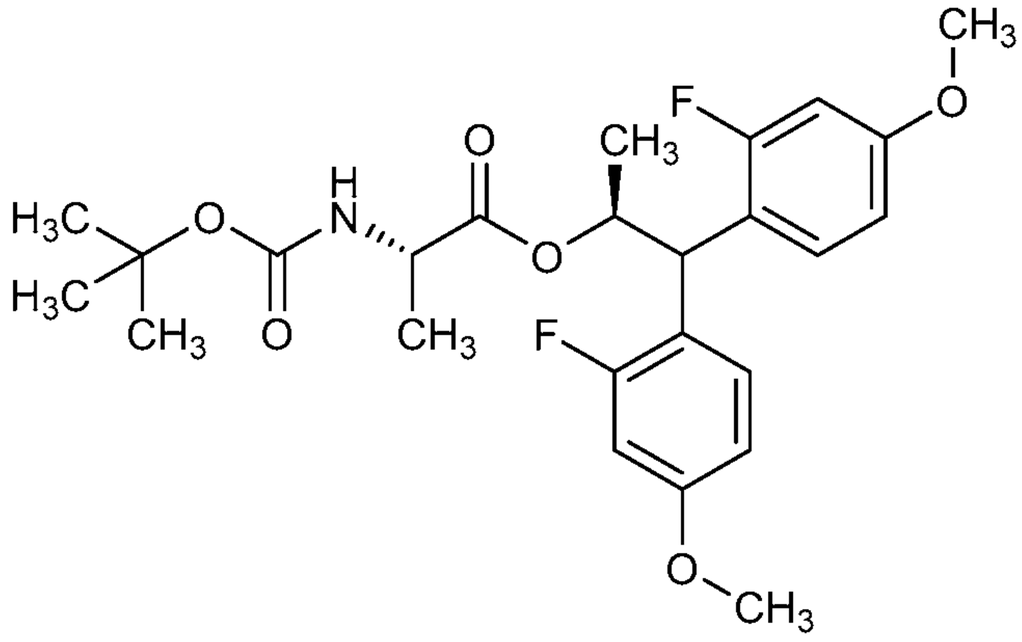
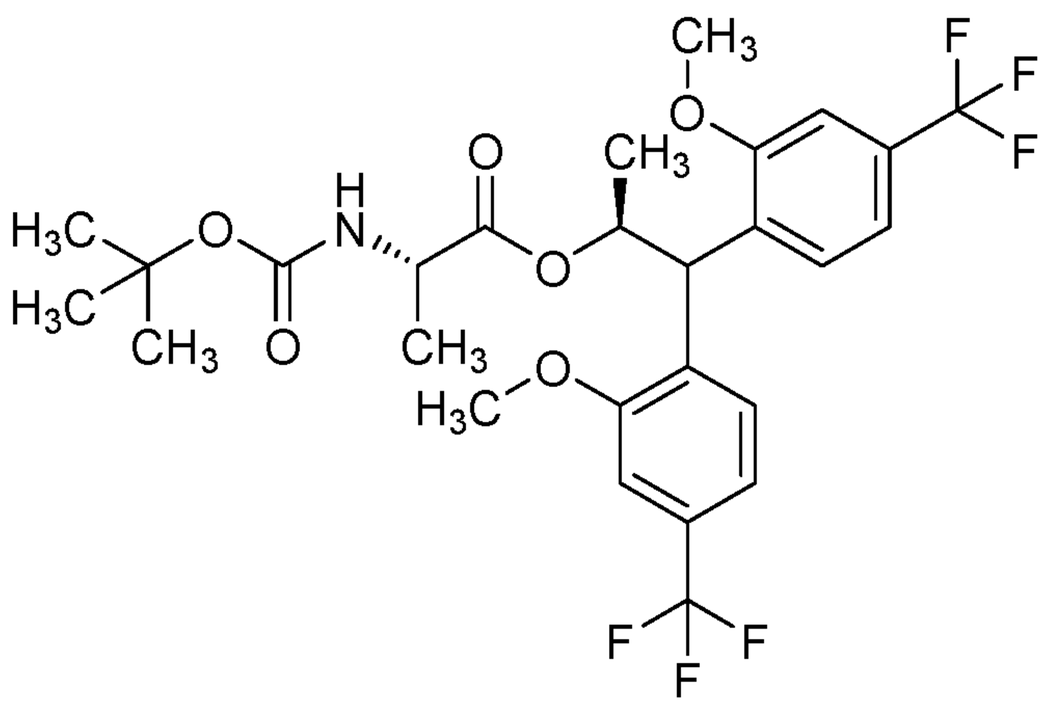
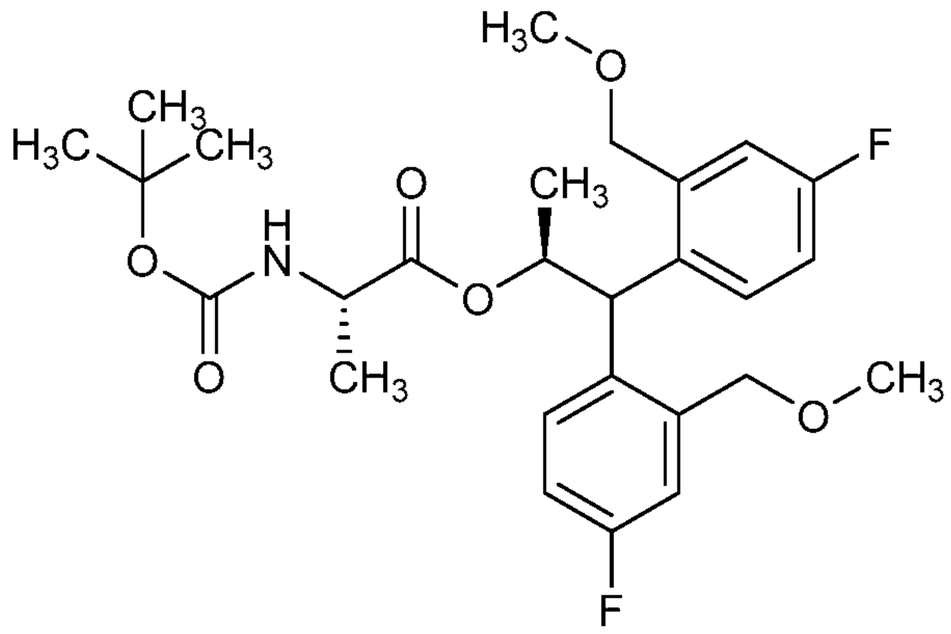
*Cmpd. No.	Structure	Prepared According To Example	Appearance
245		Example 1; Example 3C; Example 4A.	White Foam
246		Example 1; Example 2A; Example 3A; Example 4A.	White Foam
247		Example 1; Example 3C; Example 4A.	White Foam

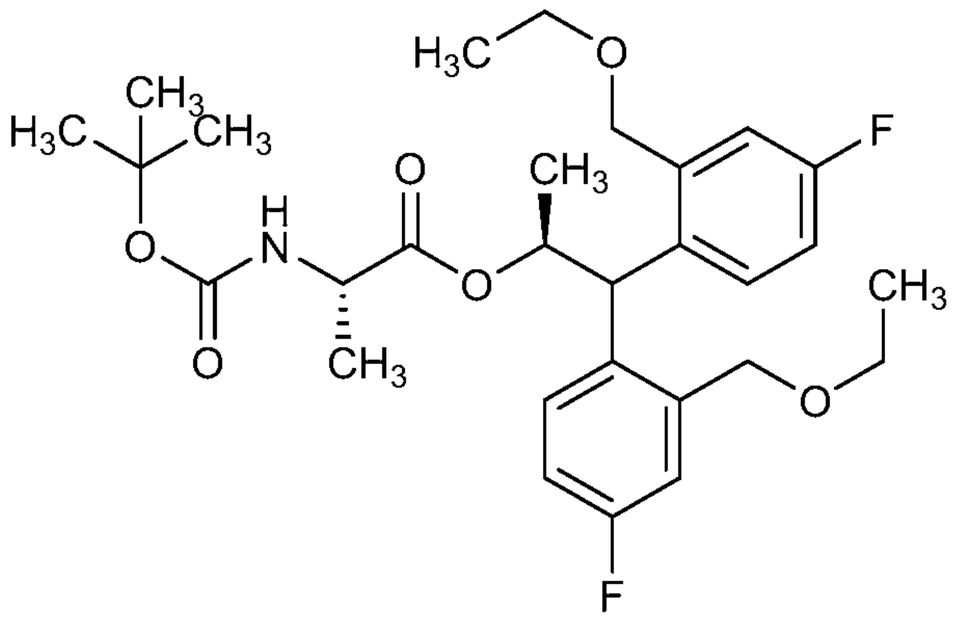
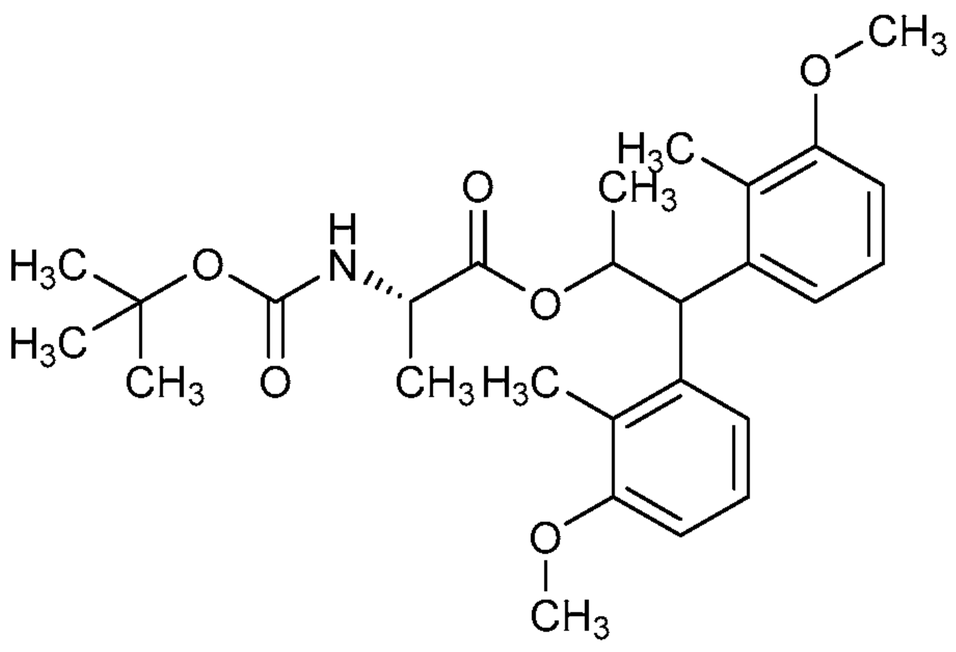
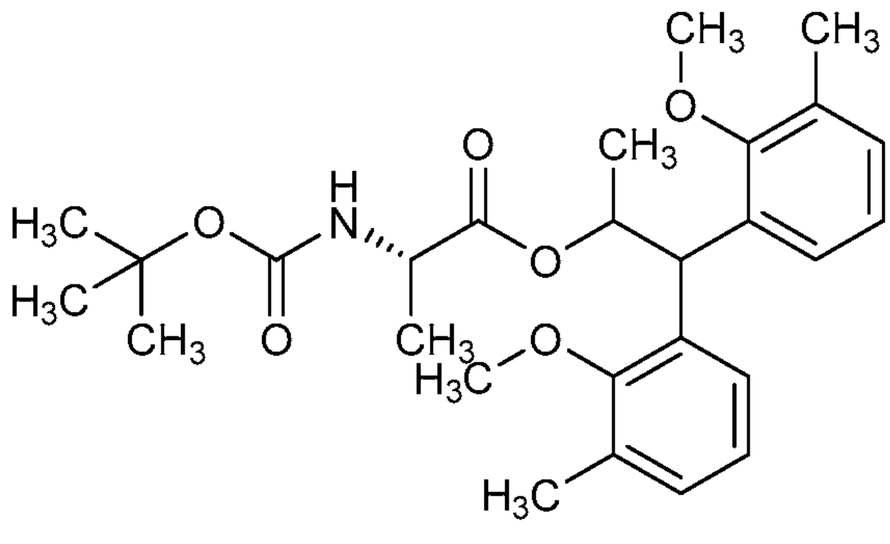
*Cmpd. No.	Structure	Prepared According To Example	Appearance
248		Example 1; Example 2A; Example 3A; Example 4A.	White Foam
249		Example 3G, Steps 1 and 2; Example 4A	White Foam
250		Example 1; Example 2A; Example 3A; Example 4A.	White Semisolid
251		Example 1; Example 2A; Example 3A; Example 4A.	White Semisolid

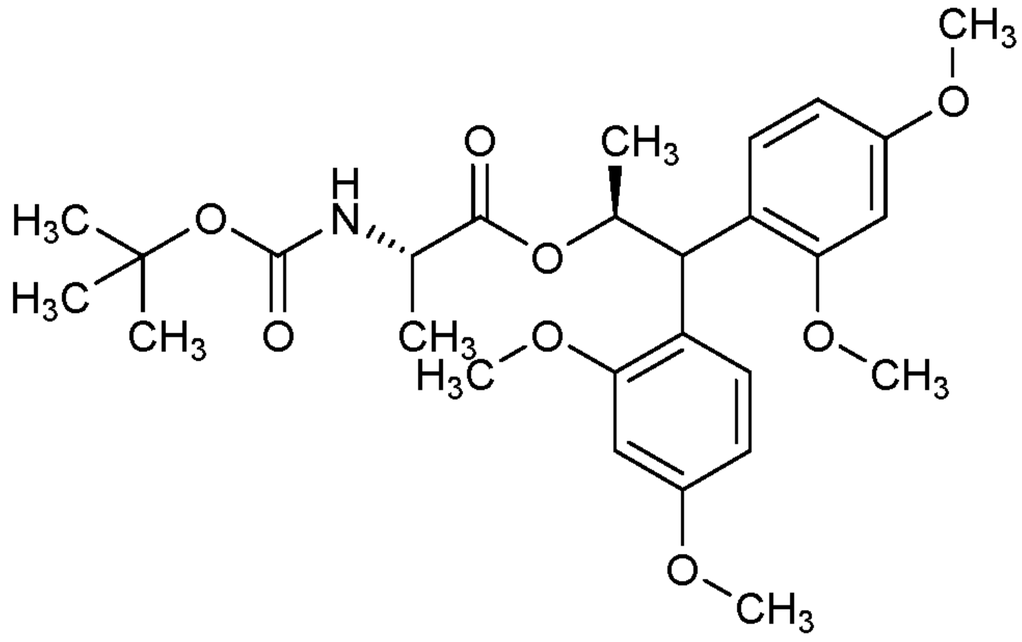
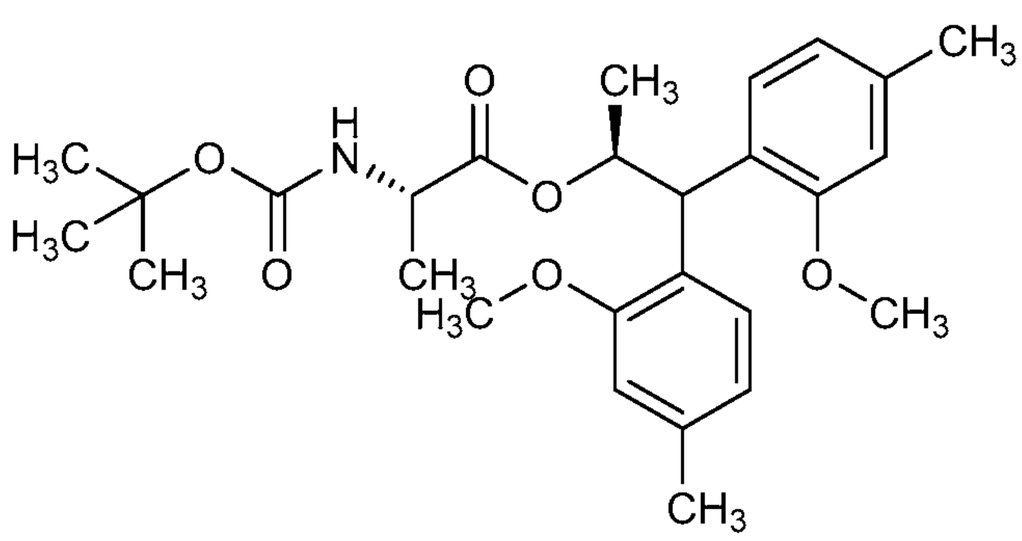
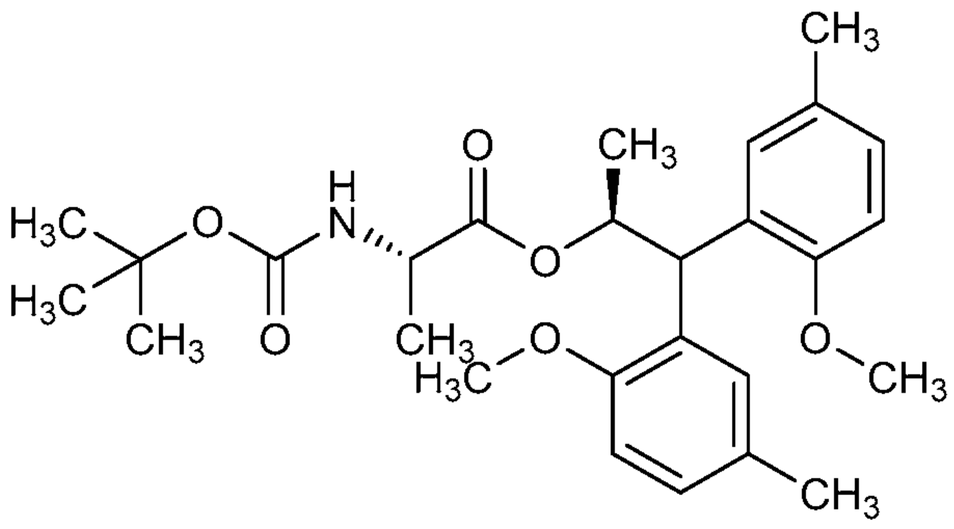
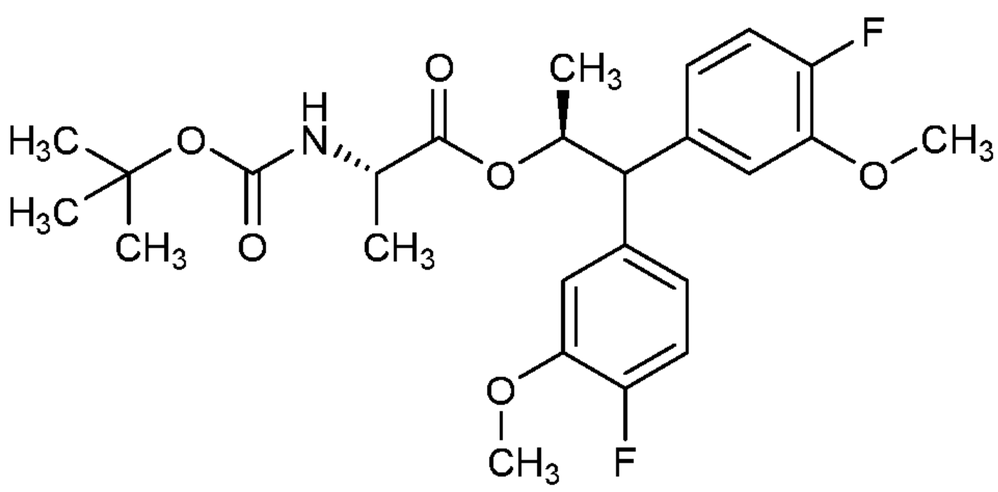
*Cmpd. No.	Structure	Prepared According To Example	Appearance
252		Example 1; Example 2A; Example 3A; Example 4A.	White Semisolid
253		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil
254		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil
255		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil

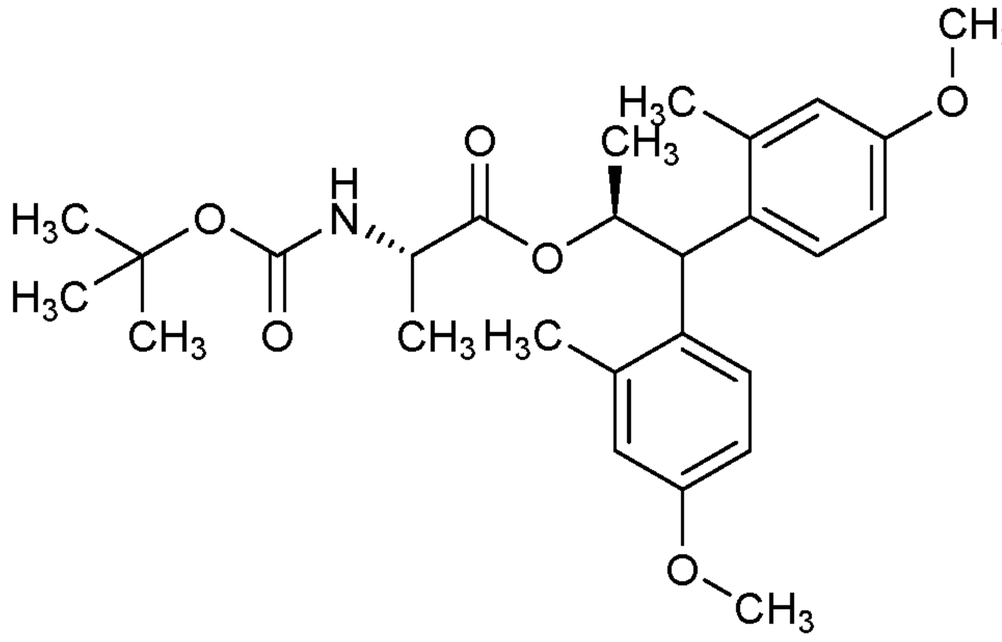
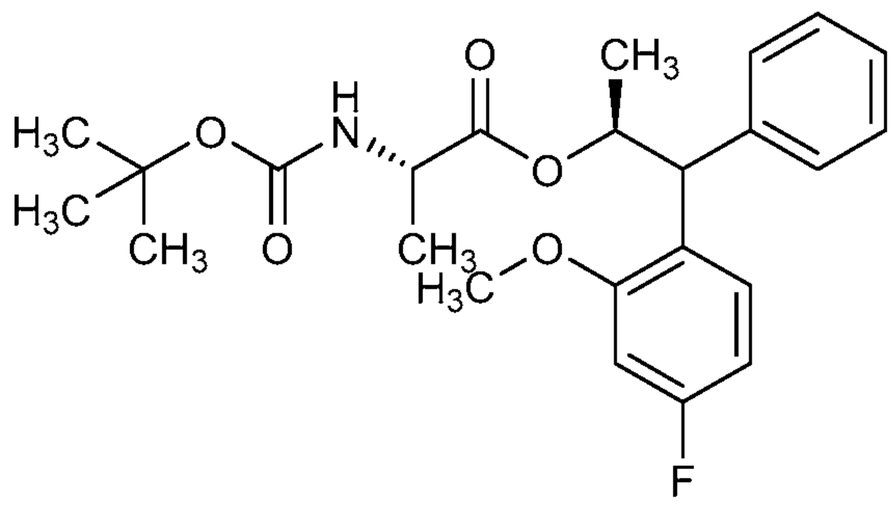
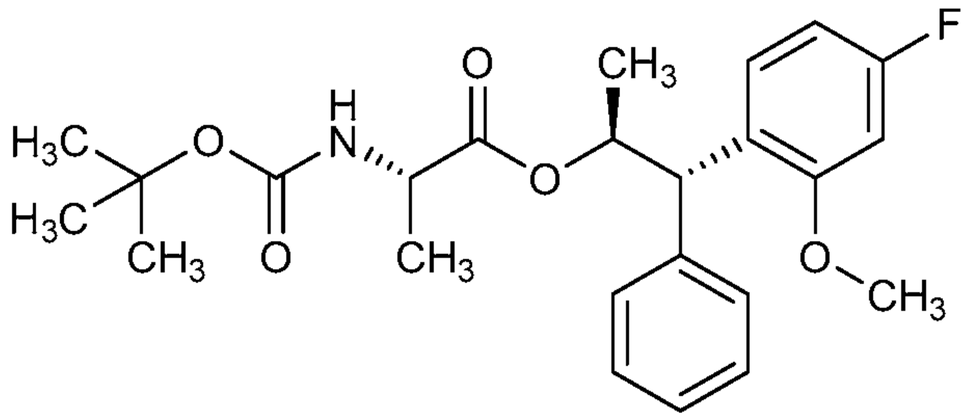
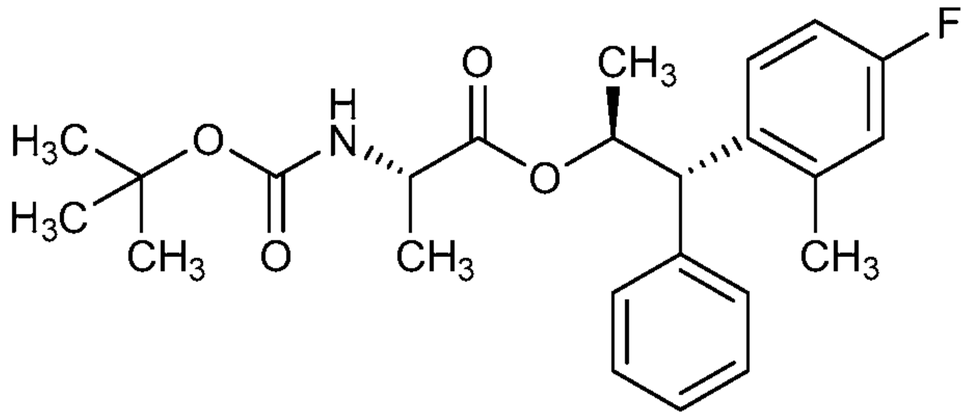
*Cmpd. No.	Structure	Prepared According To Example	Appearance
256		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil
257		Example 1; Example 2A; Example 3A; Example 4A.	Clear, Colorless Oil
258		Example 3I, Example 4A	White Foam
259		Example 1; Example 2A; Example 3A; Example 4A.	White Foam

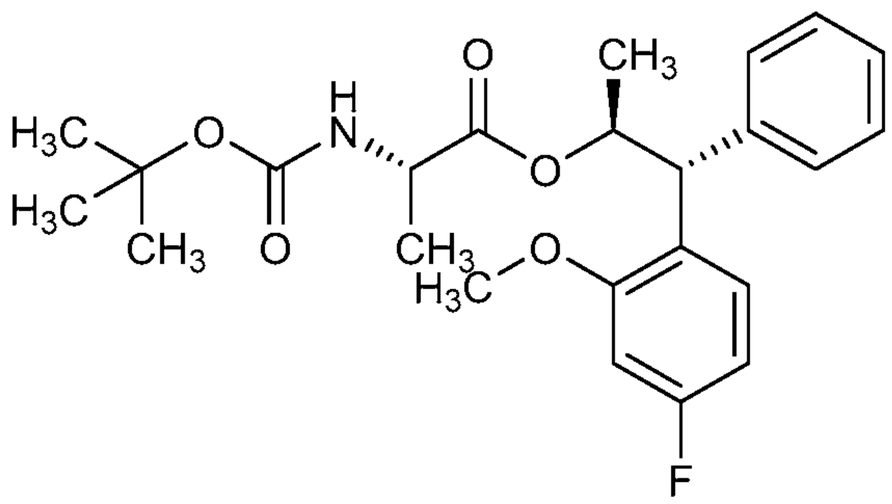
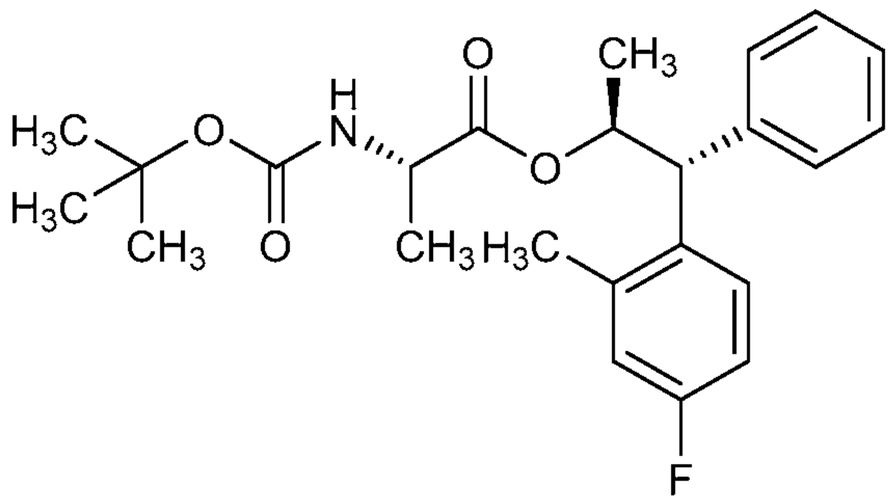
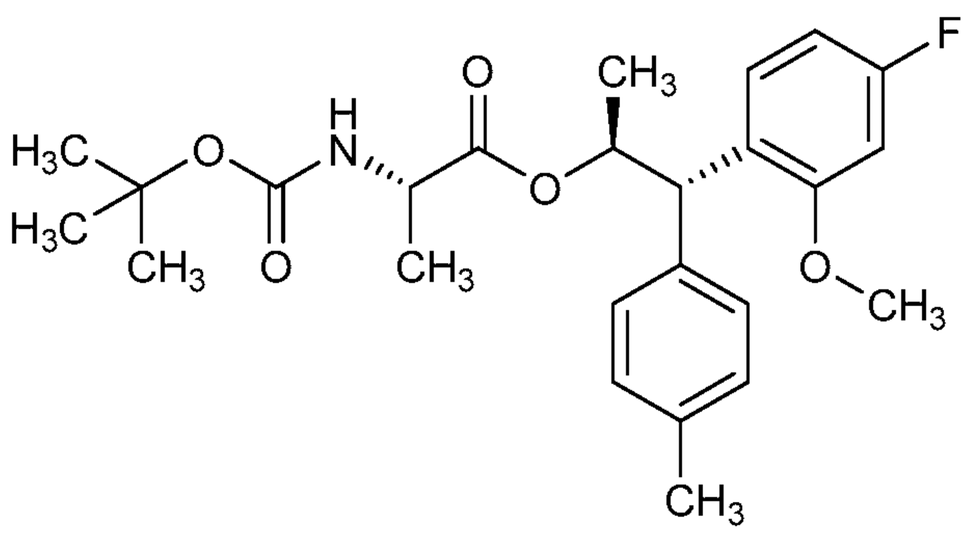
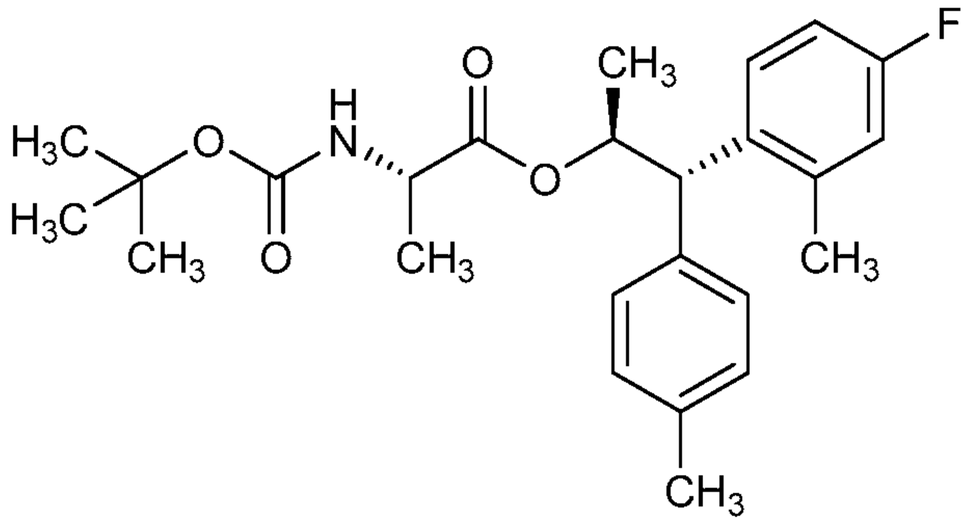
*Cmpd. No.	Structure	Prepared According To Example	Appearance
260		Example 1; Example 2A; Example 3A; Example 4A.	Colorless Oil
261		Example 1; Example 2A; Example 3A; Example 4A.	Colorless Oil
262		Example 1; Example 2A; Example 3A; Example 4A.	Colorless Oil
263		Example 1; Example 2A; Example 3A; Example 4A.	Colorless Oil

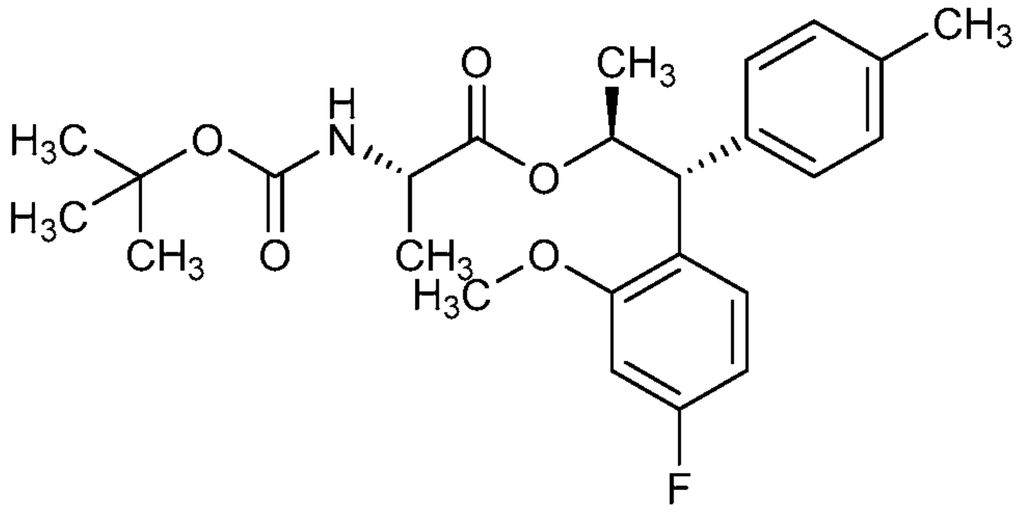
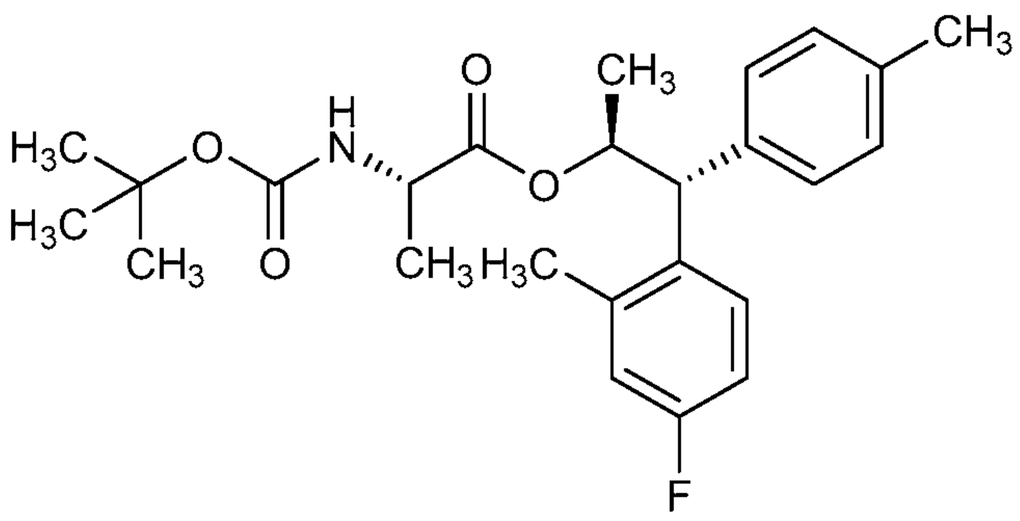
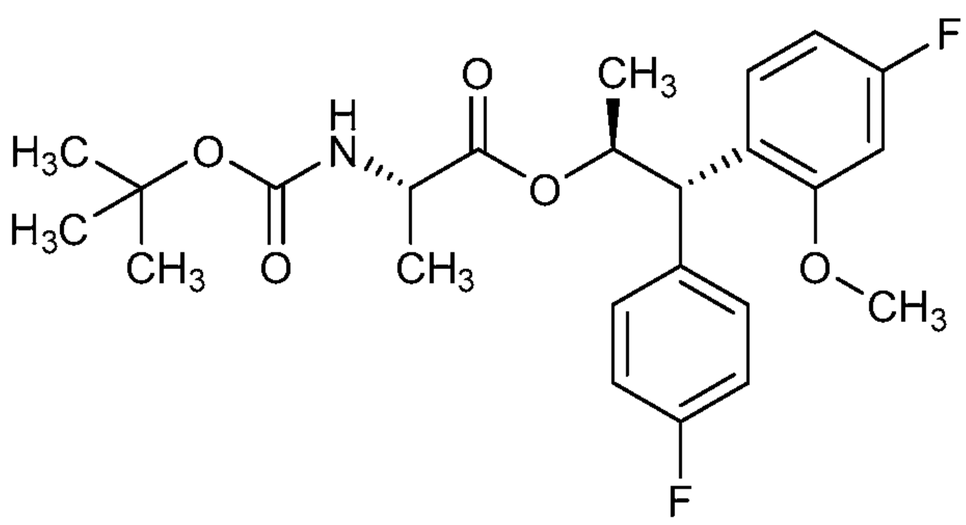
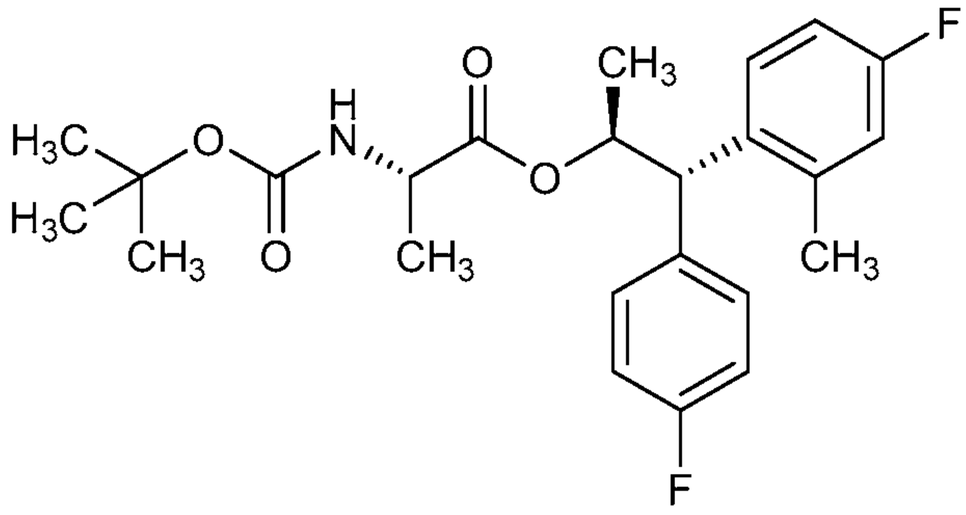
*Cmpd. No.	Structure	Prepared According To Example	Appearance
264		Example 1; Example 2A; Example 3A; Example 4A.	White Foam
265		Example 1; Example 2A; Example 3A; Example 4A.	Colorless Oil
266		Example 1; Example 2A; Example 3A; Example 4A.	Sticky Wax

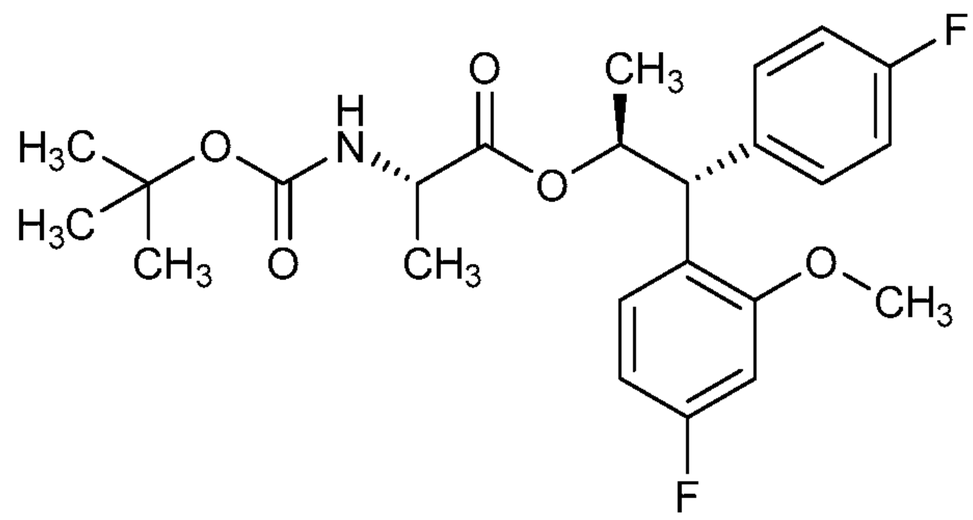
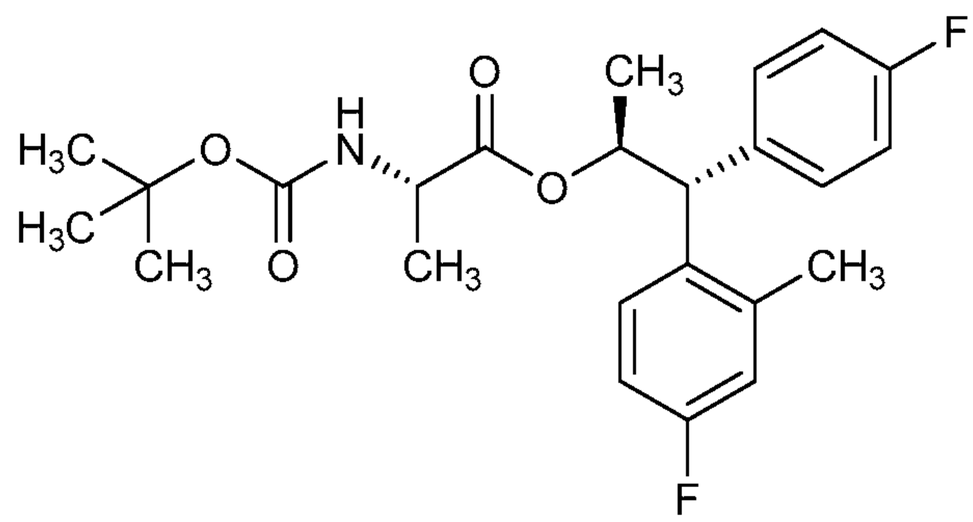
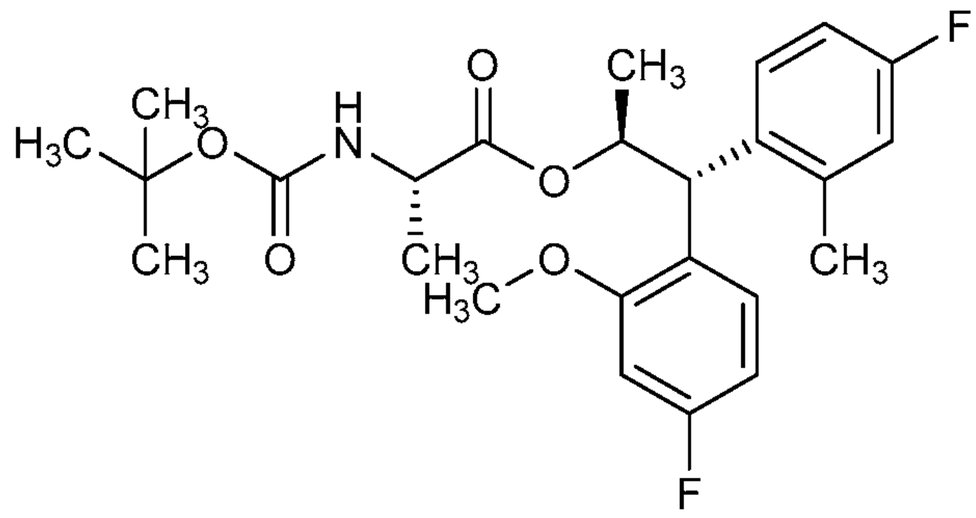
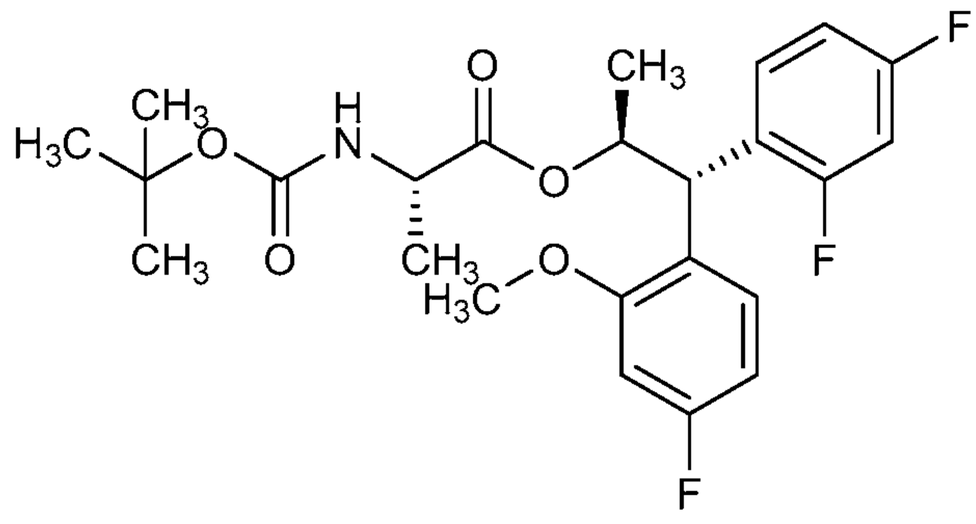
*Cmpd. No.	Structure	Prepared According To Example	Appearance
267		Example 1; Example 2A; Example 3A; Example 4A.	Sticky Wax.
268		Example 3I, Example 4A	Oil
269		Example 3I, Example 4A	Oil

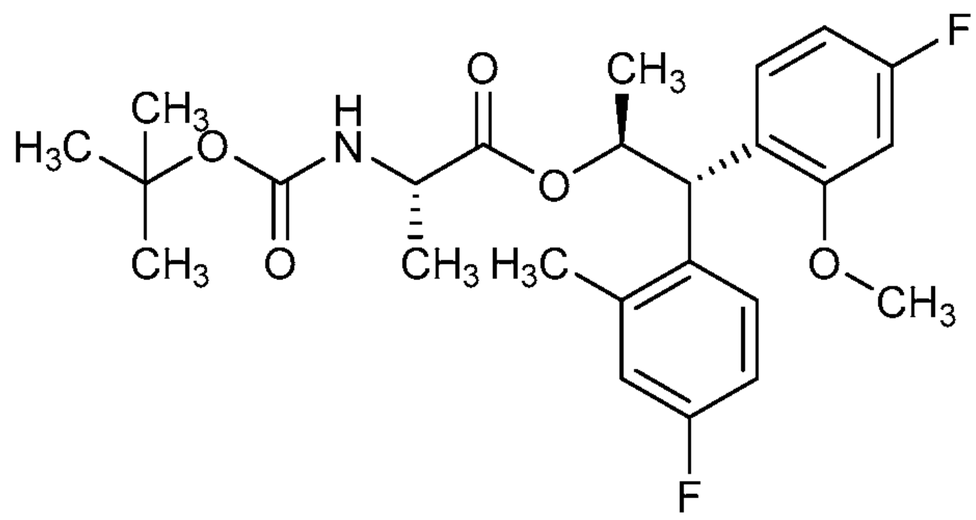
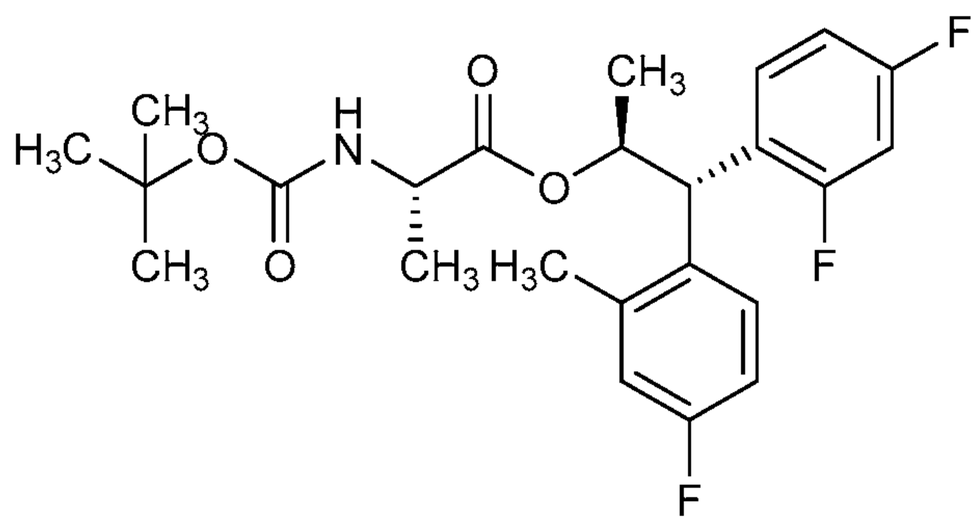
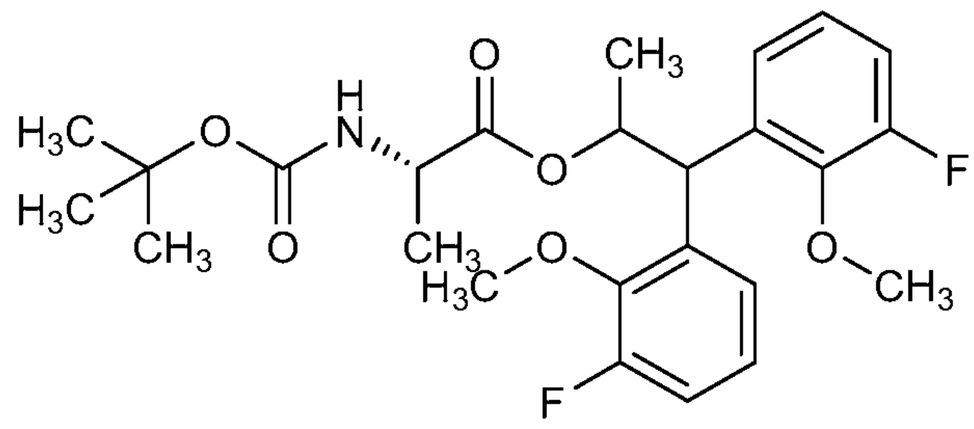
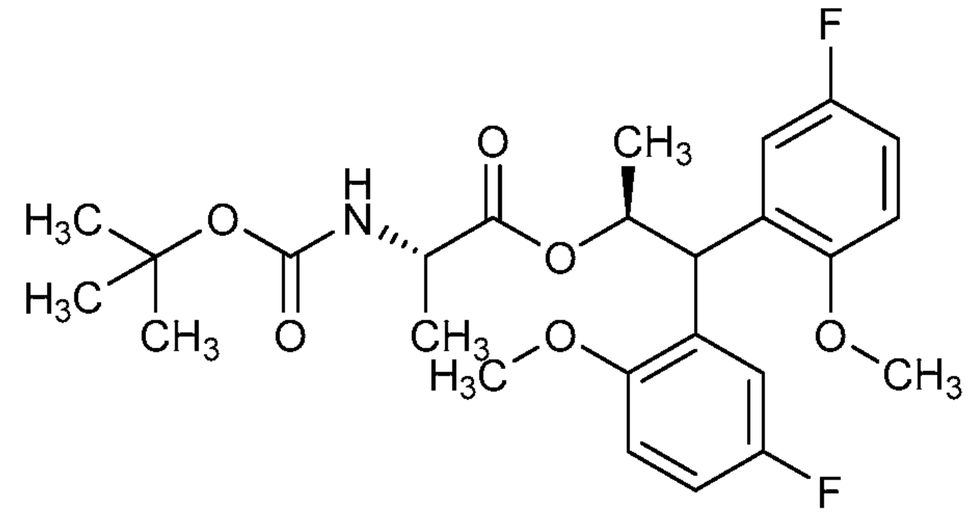
*Cmpd. No.	Structure	Prepared According To Example	Appearance
270		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
271		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
272		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
273		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil

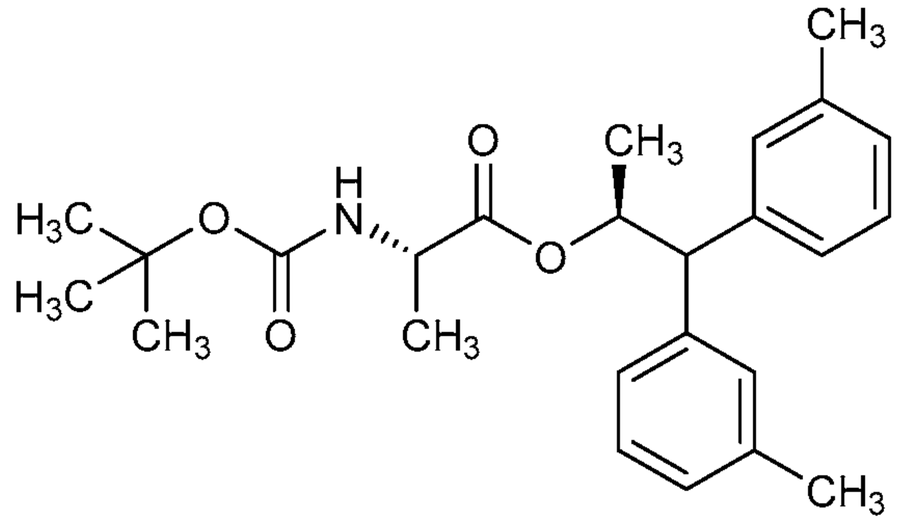
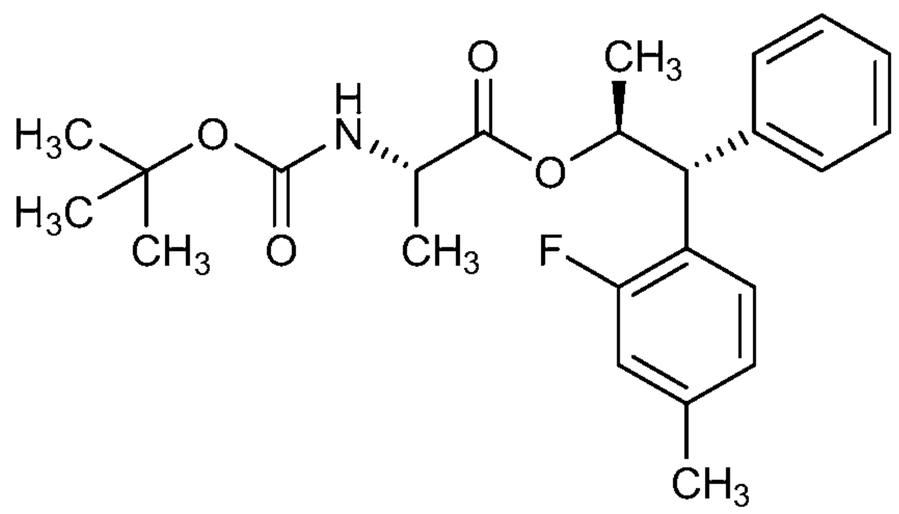
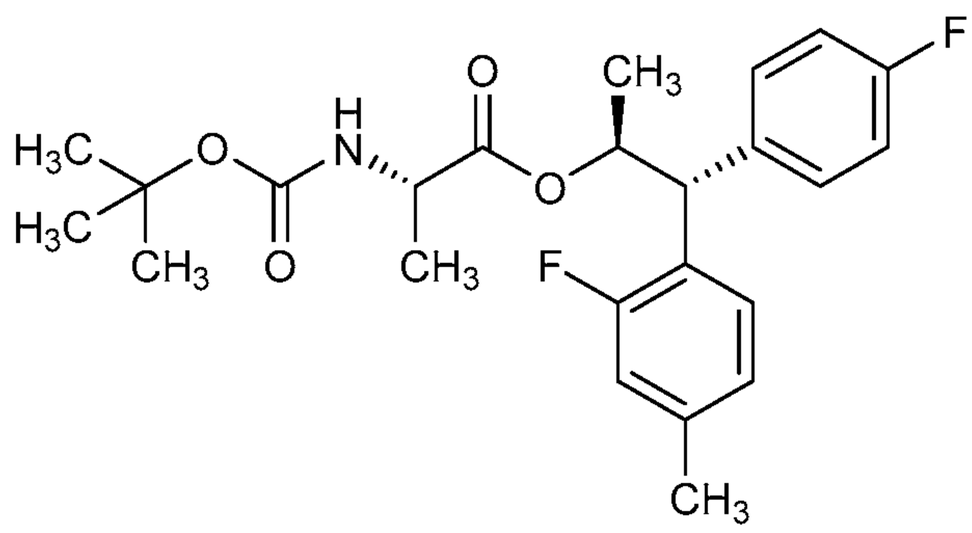
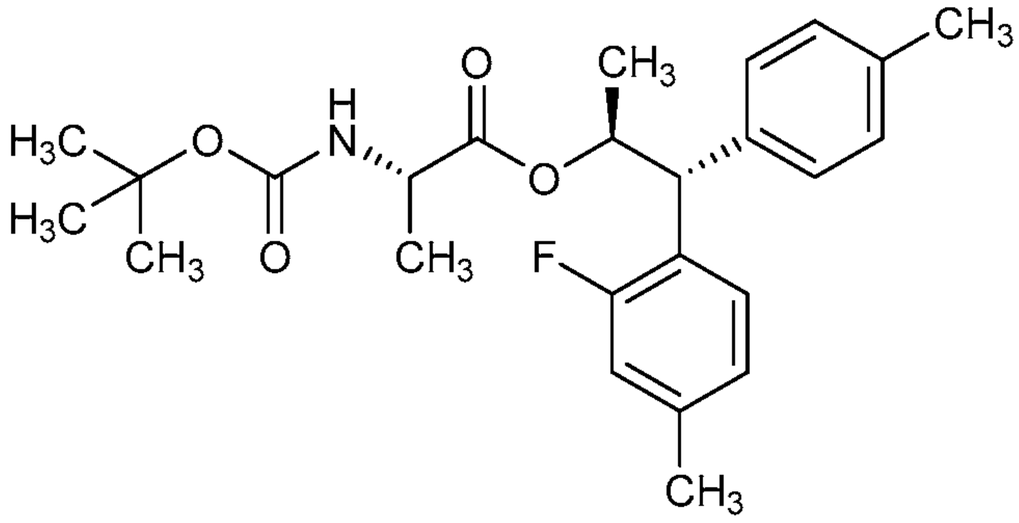
*Cmpd. No.	Structure	Prepared According To Example	Appearance
274		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
275		Example 3F; Example 4A	Colorless Oil
276		Example 3F; Example 4A	Colorless Oil
277		Example 3F; Example 4A	Colorless Oil

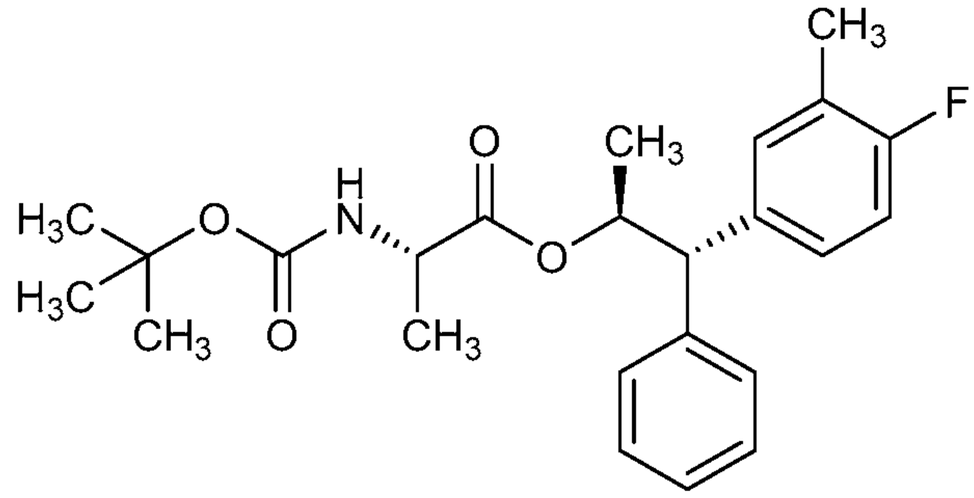
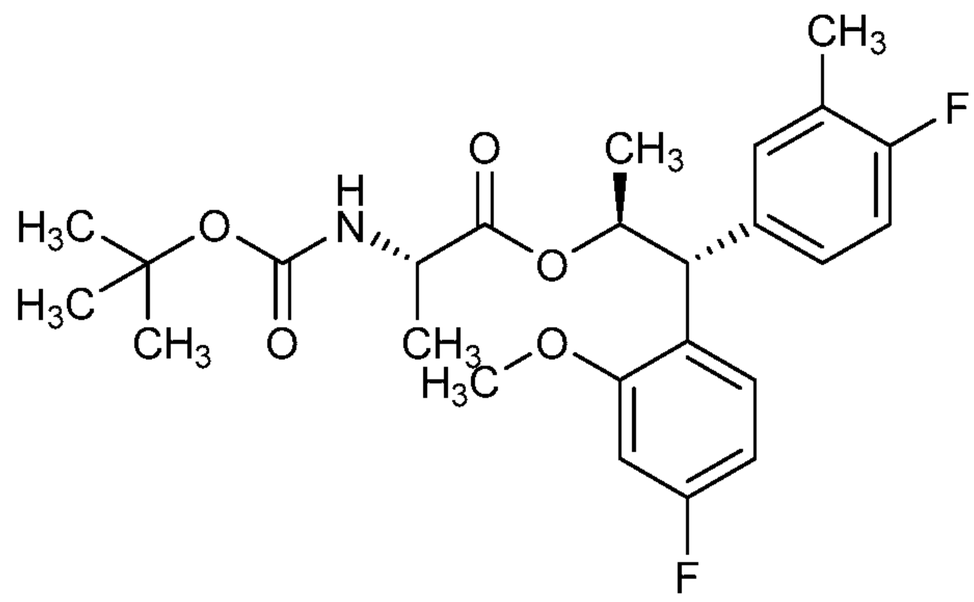
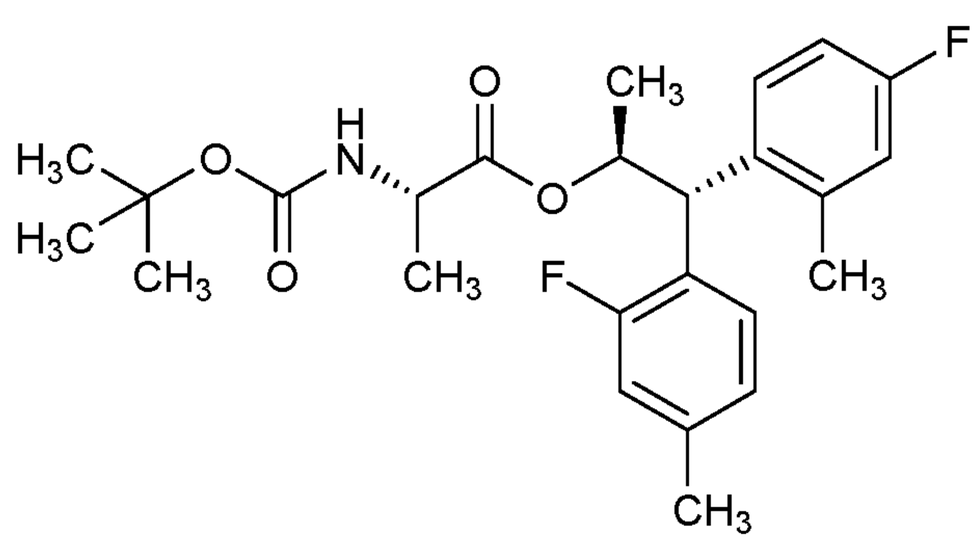
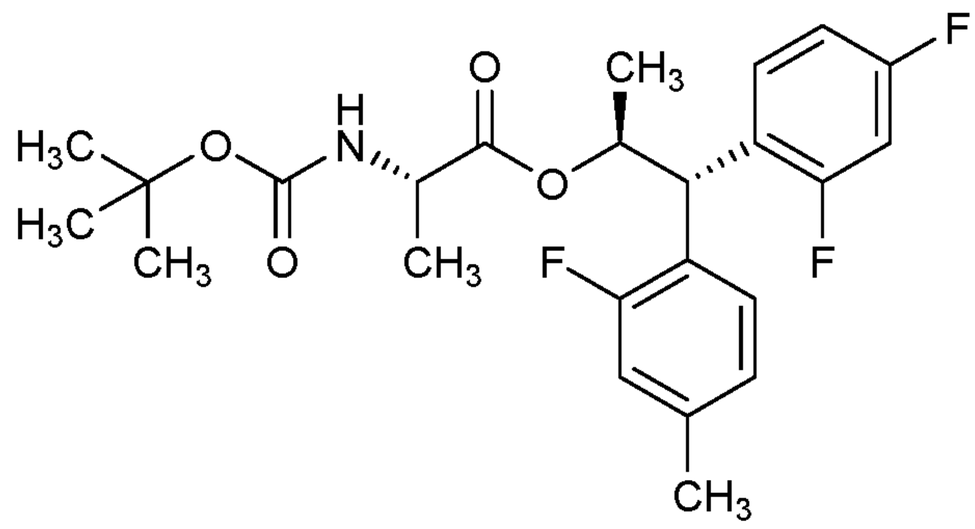
*Cmpd. No.	Structure	Prepared According To Example	Appearance
278		Example 3F; Example 4A	Colorless Oil
279		Example 3F; Example 4A	Colorless Oil
280		Example 3F; Example 4A	Colorless Oil
281		Example 3F; Example 4A	Colorless Oil

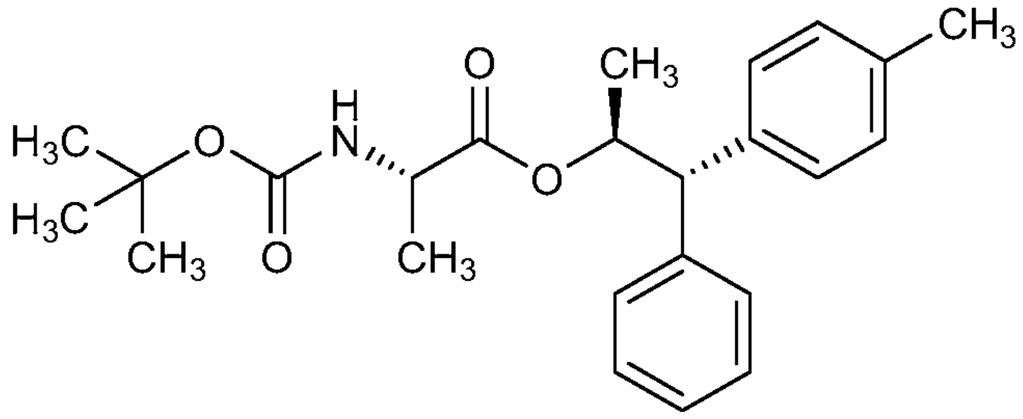
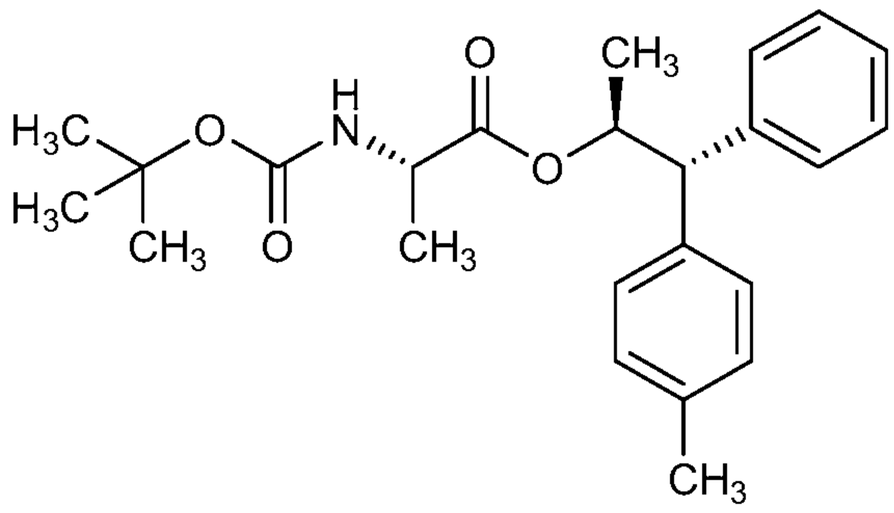
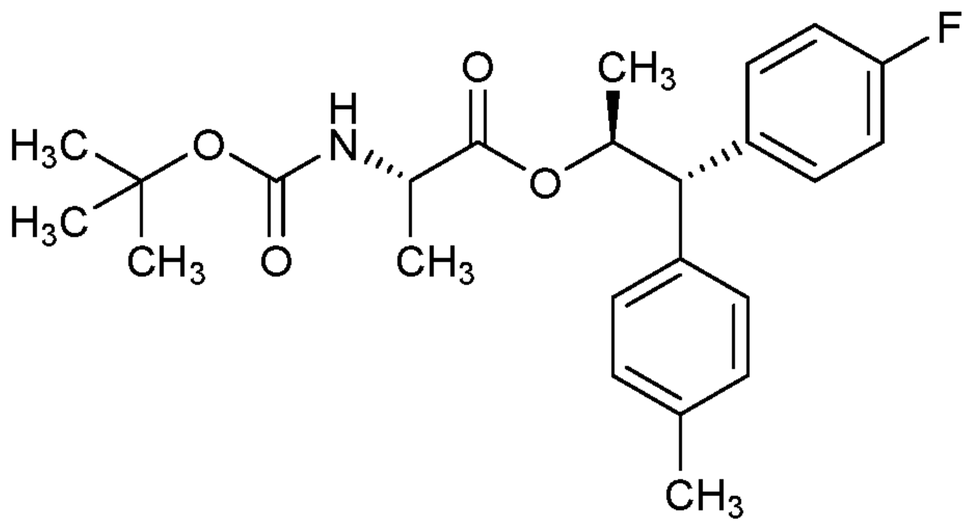
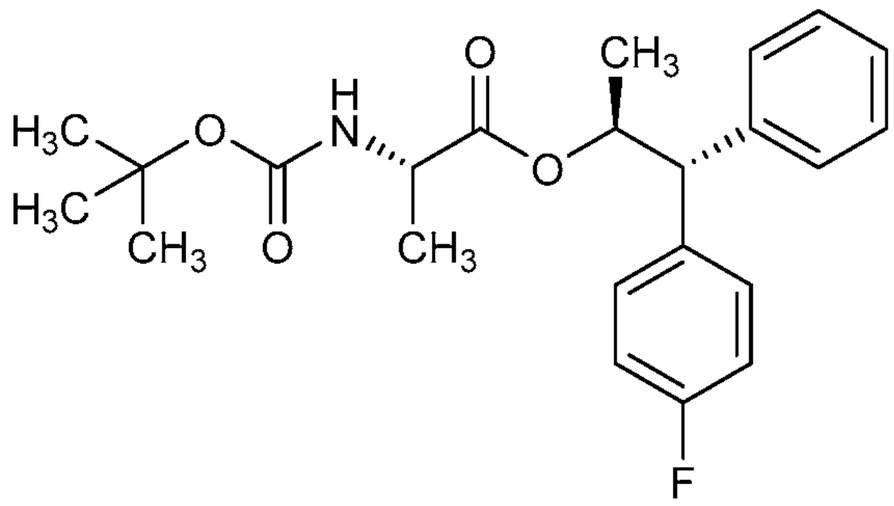
*Cmpd. No.	Structure	Prepared According To Example	Appearance
282		Example 3F; Example 4A	Colorless Oil
283		Example 3F; Example 4A	Colorless Oil
284		Example 3F; Example 4A	Colorless Oil
285		Example 3F; Example 4A	Colorless Oil

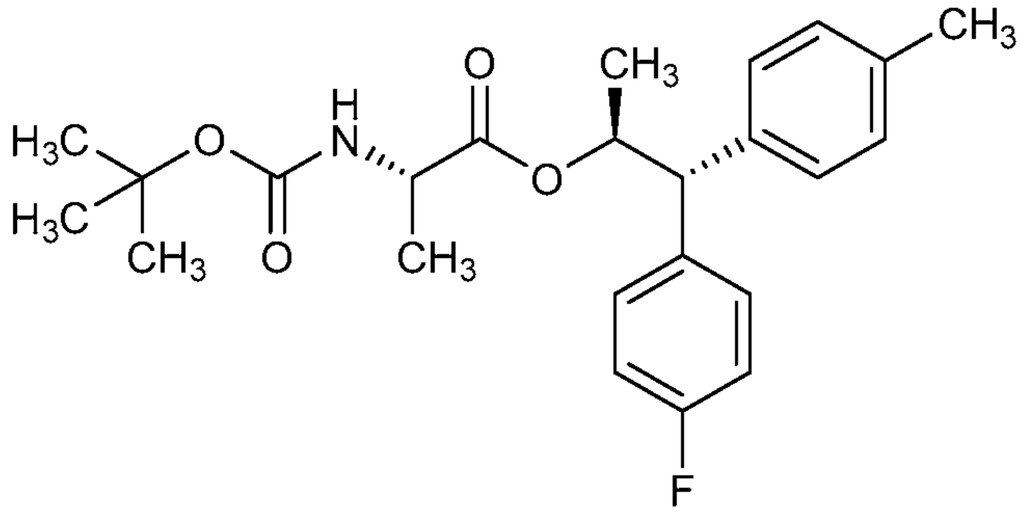
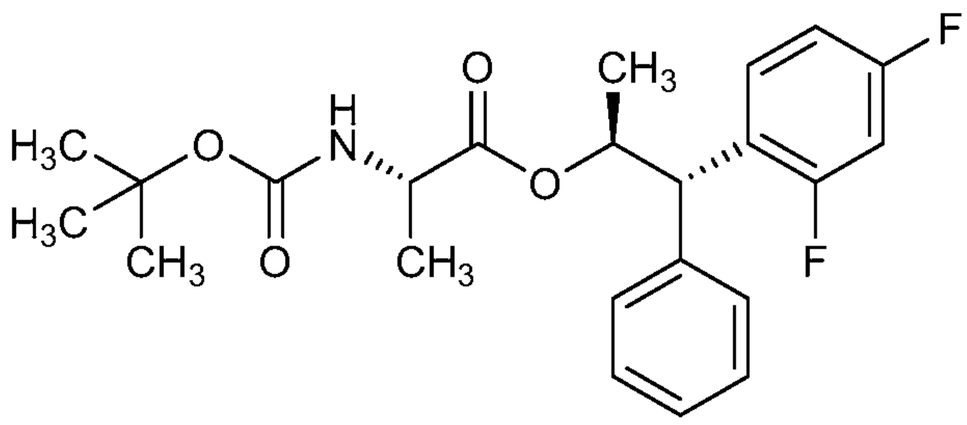
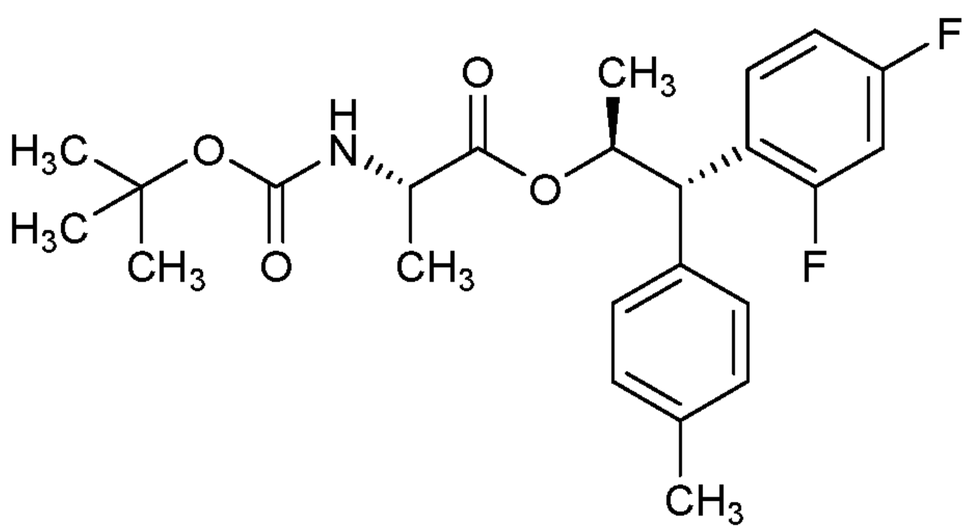
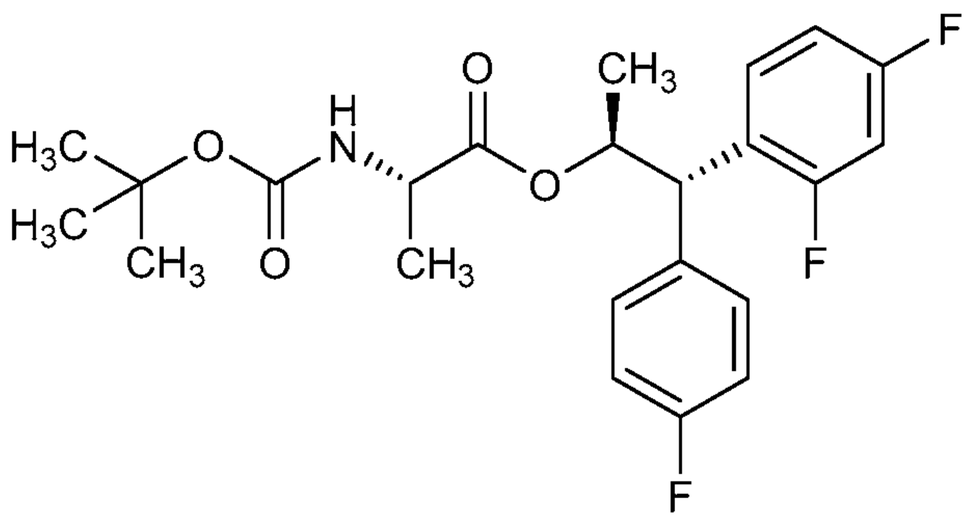
*Cmpd. No.	Structure	Prepared According To Example	Appearance
286		Example 3F; Example 4A	Colorless Oil
287		Example 3F; Example 4A	Colorless Oil
288		Example 3F; Example 4A	White Foam
289		Example 3F; Example 4A	Yellow Sticky Wax

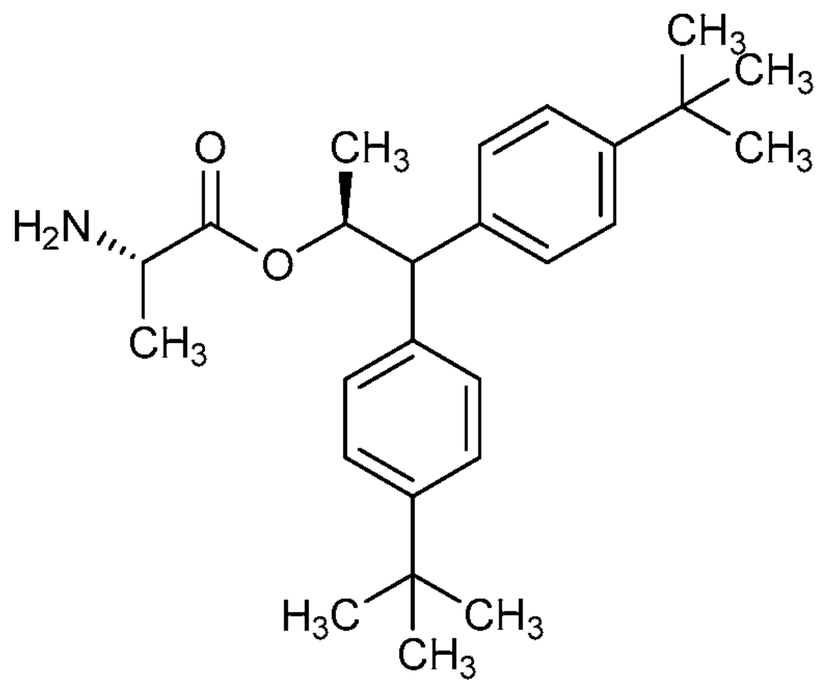
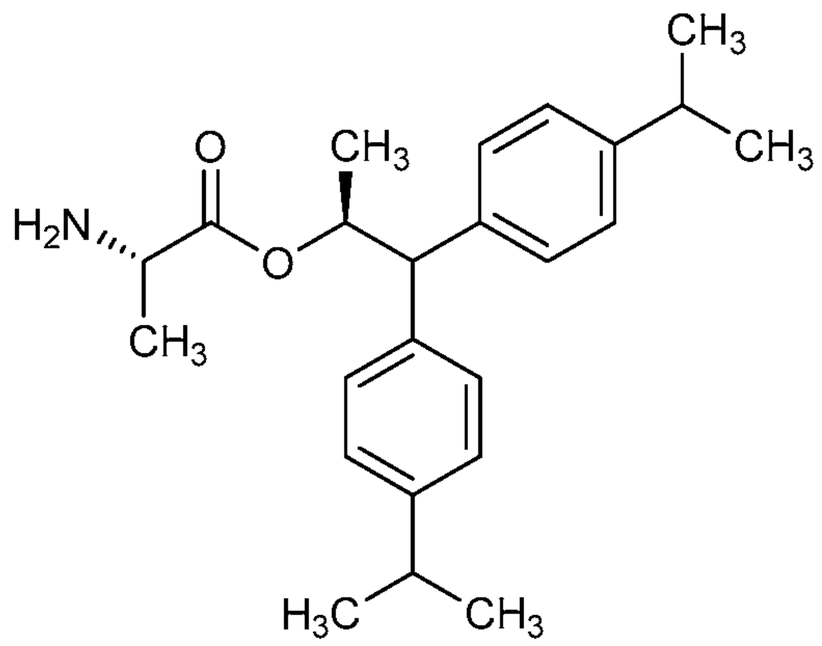
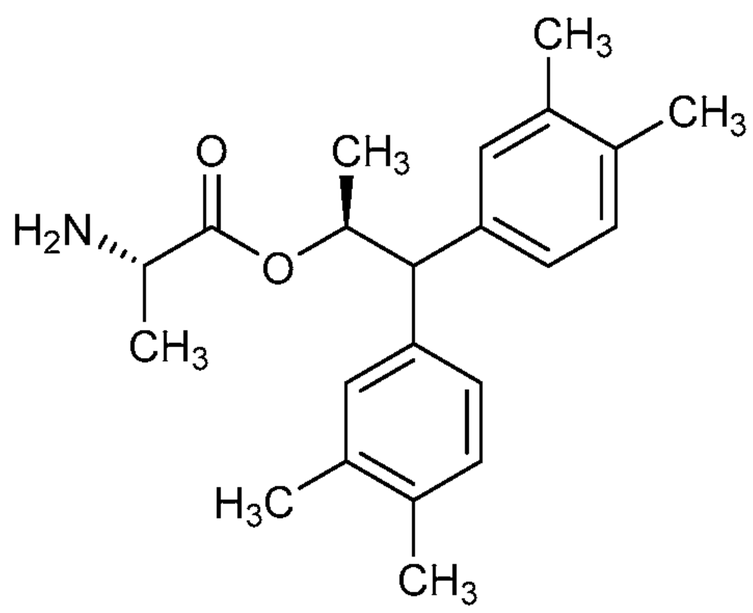
*Cmpd. No.	Structure	Prepared According To Example	Appearance
290		Example 3F; Example 4A	White Foam
291		Example 3F; Example 4A	Yellow Sticky Wax
292		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
293		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil

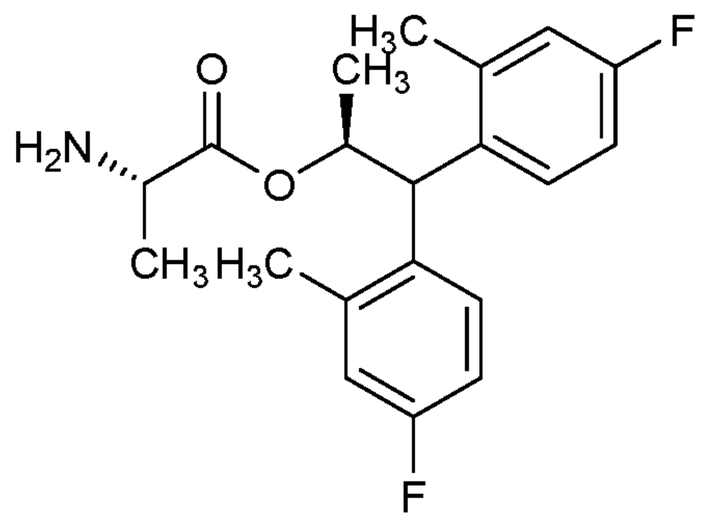
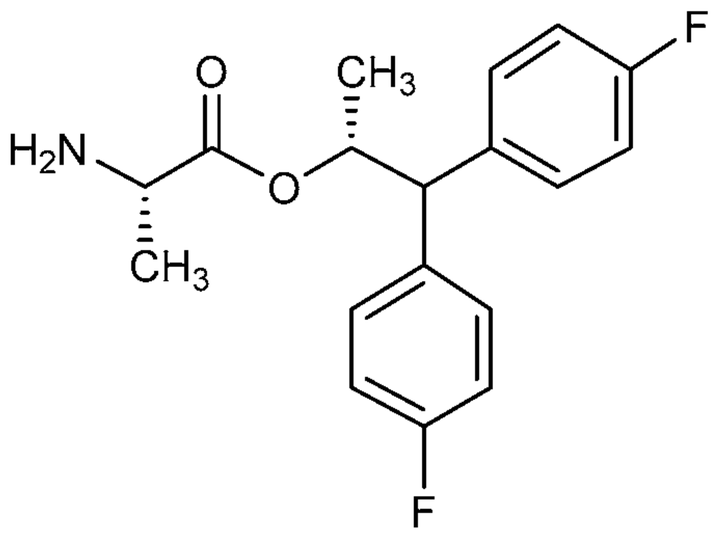
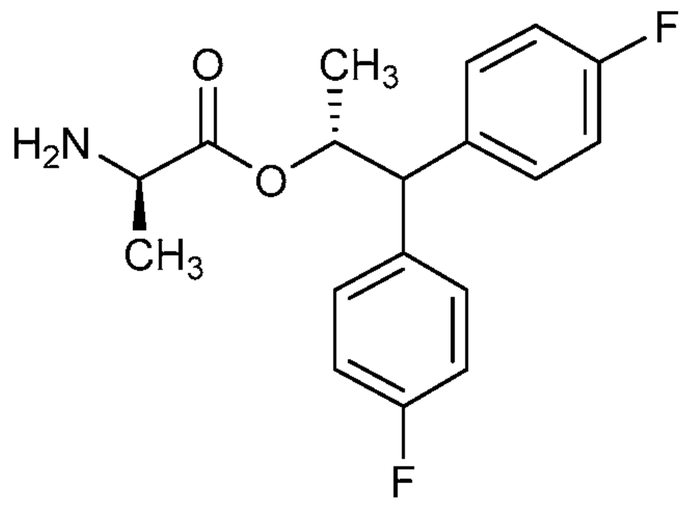
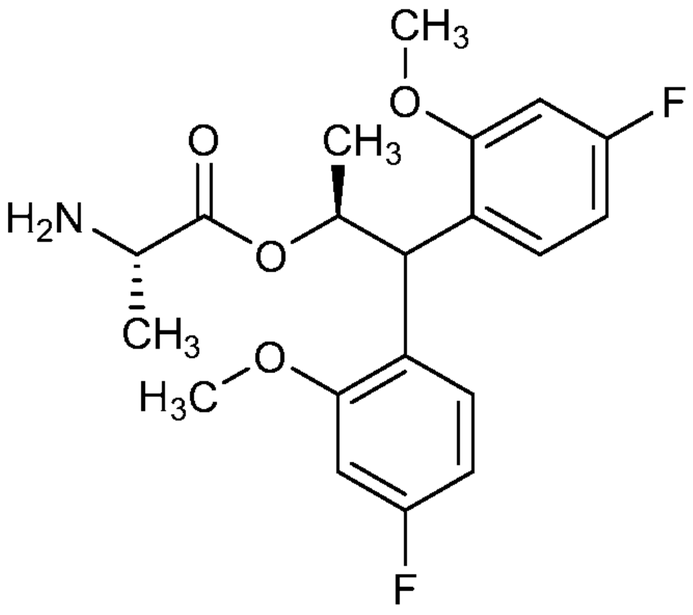
*Cmpd. No.	Structure	Prepared According To Example	Appearance
294		Example 1; Example 2A; Example 3A; Example 4A	Colorless Oil
295		Example 3F; Example 4A	Colorless Oil
296		Example 3F; Example 4A	Colorless Oil
297		Example 3F; Example 4A	Colorless Oil

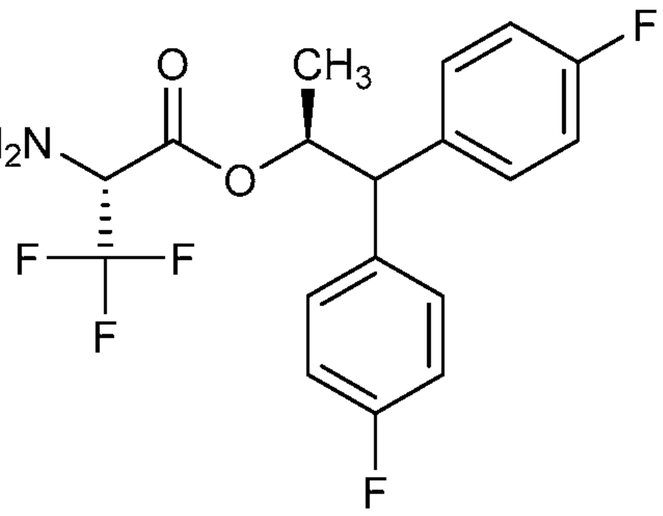
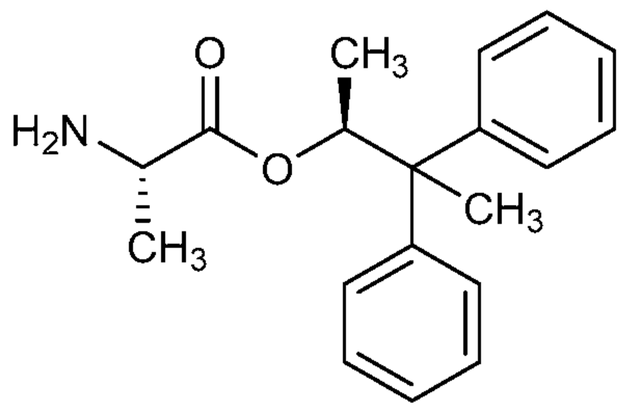
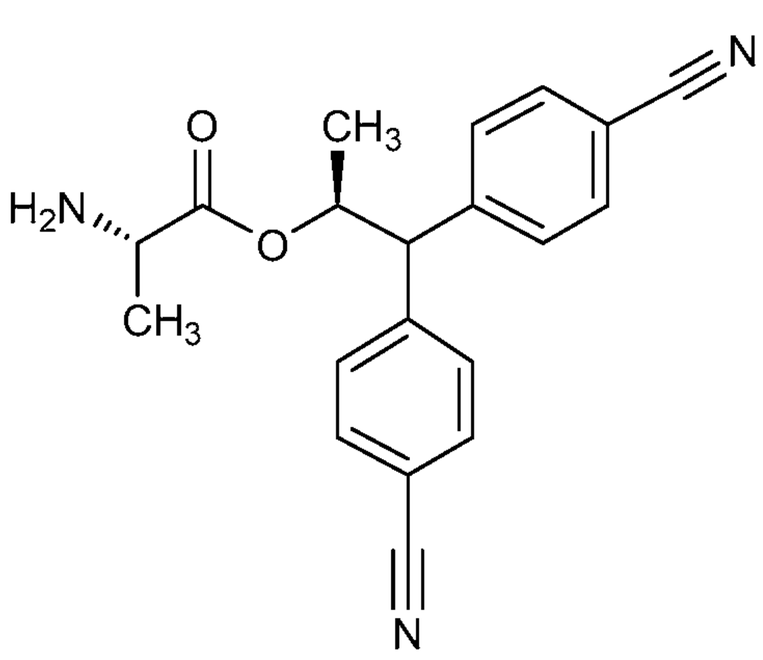
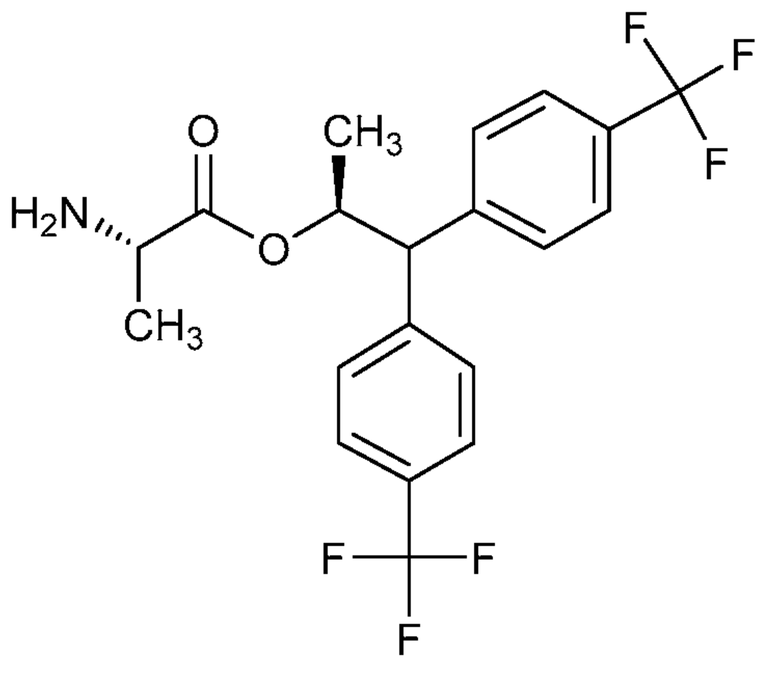
*Cmpd. No.	Structure	Prepared According To Example	Appearance
298		Example 3F; Example 4A	Colorless Oil
299		Example 3F; Example 4A	Colorless Oil
300		Example 3F; Example 4A	Colorless Oil
301		Example 3F; Example 4A	Colorless Oil

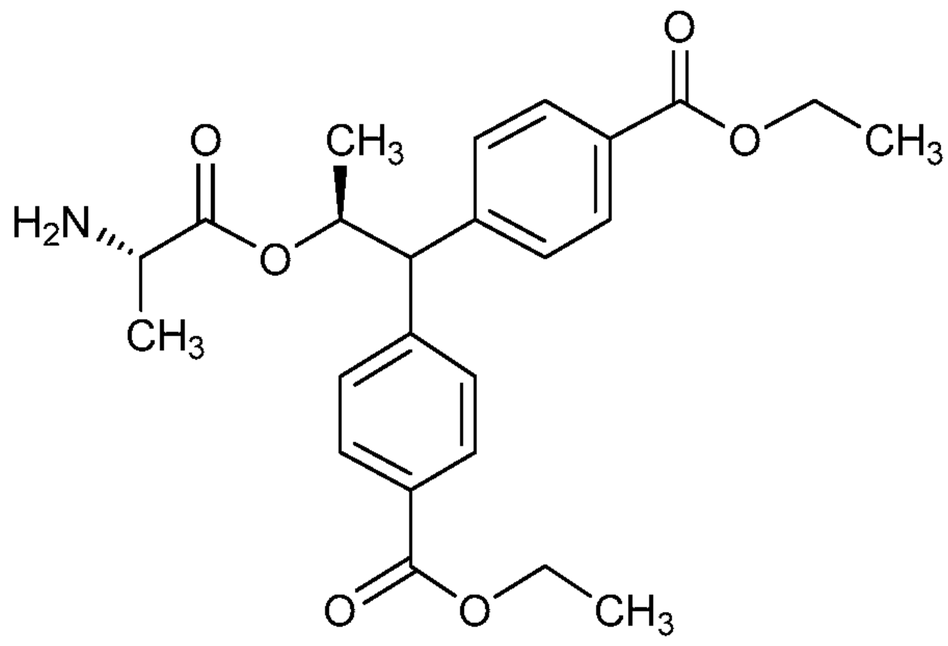
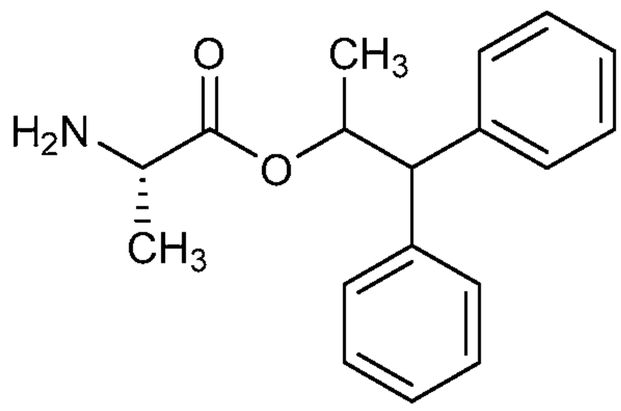
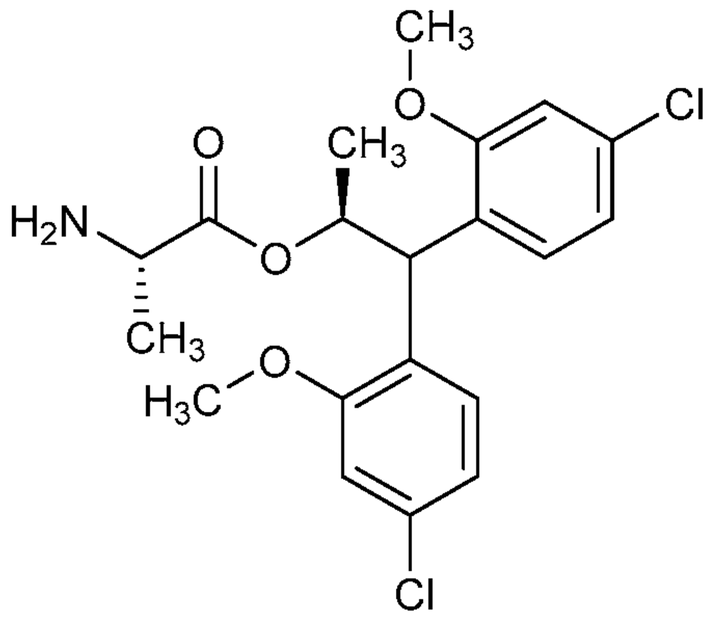
*Cmpd. No.	Structure	Prepared According To Example	Appearance
302		Example 3F; Example 4A	Colorless Oil
303		Example 3F; Example 4A	Colorless Oil
304		Example 3F; Example 4A	Colorless Oil
305		Example 3F; Example 4A	Colorless Oil

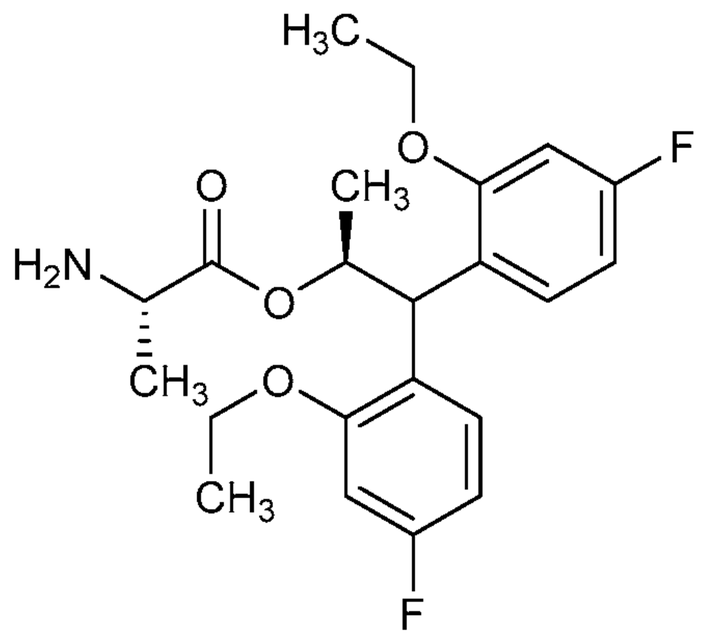
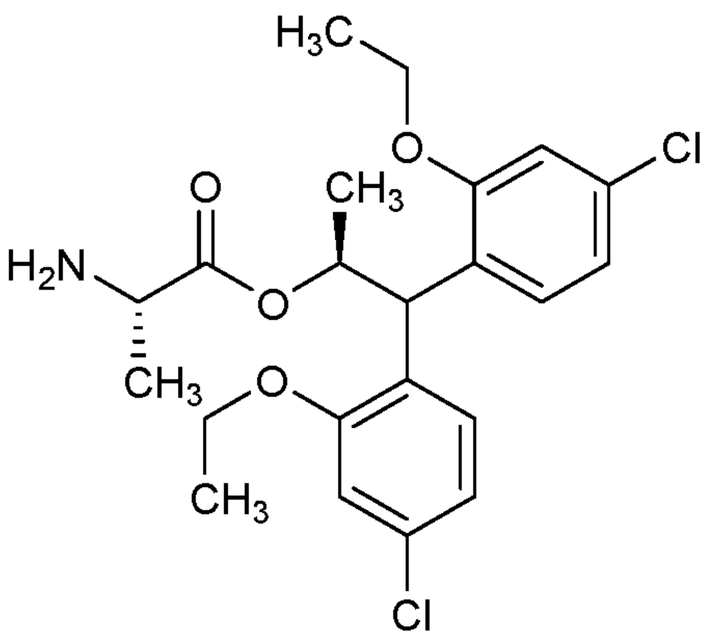
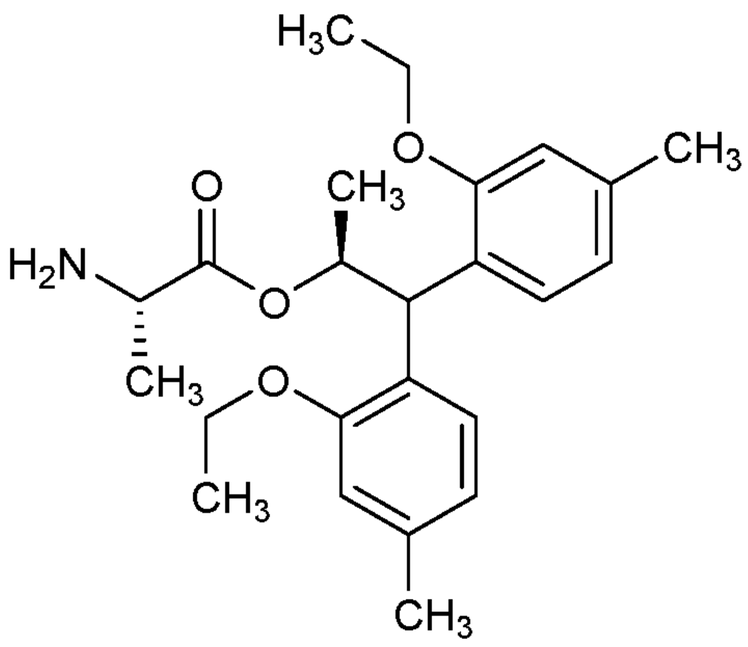
*Cmpd. No.	Structure	Prepared According To Example	Appearance
306		Example 3F; Example 4A	Colorless Oil
307		Example 3F; Example 4A	Colorless Oil
308		Example 3F; Example 4A	Thick Oil
309		Example 3F; Example 4A	Colorless Oil

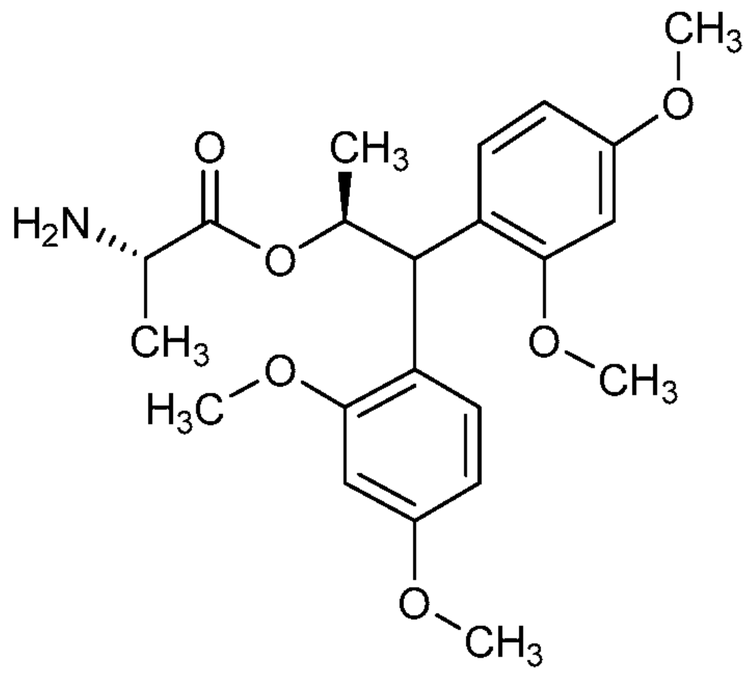
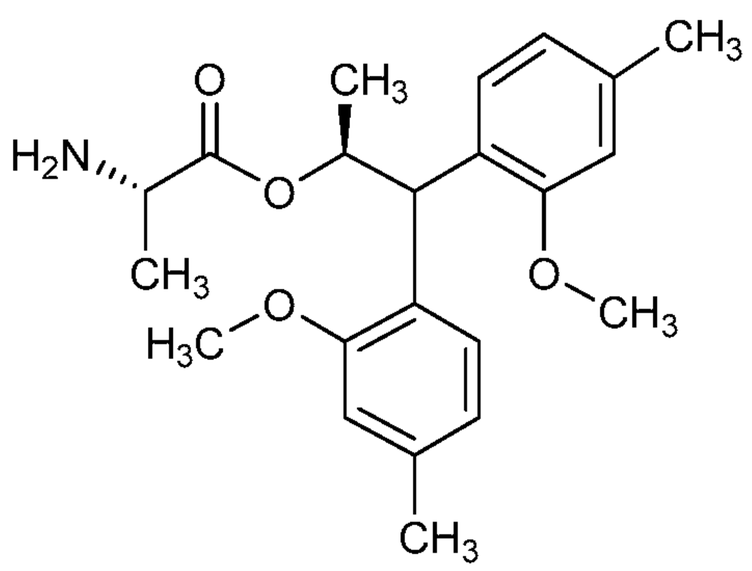
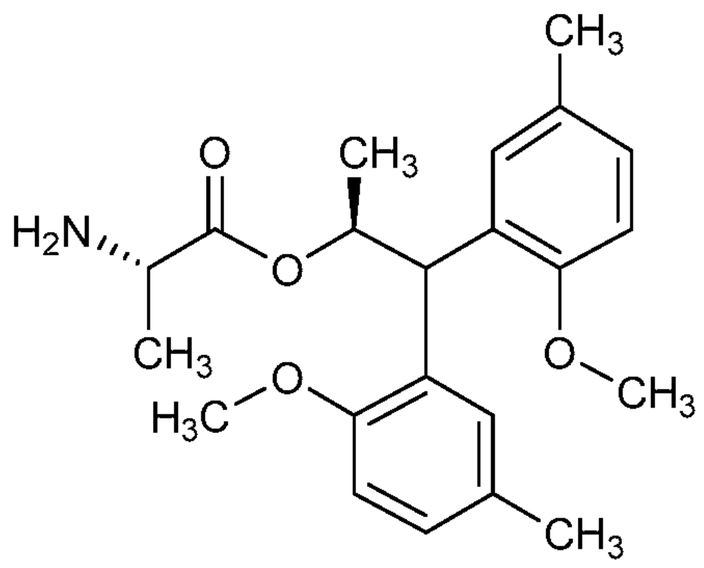
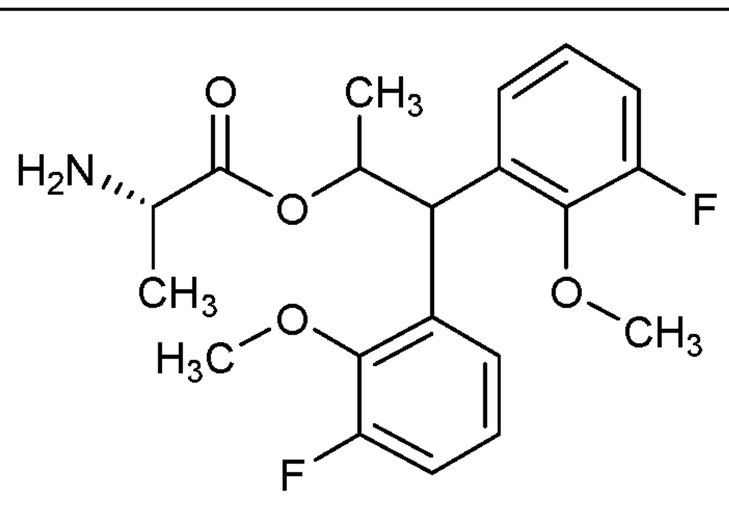
*Cmpd. No.	Structure	Prepared According To Example	Appearance
310		Example 5, Step 1.	White Powder
311		Example 5, Step 1.	White Powder
312		Example 5, Step 1.	Clear, Colorless Thick Oil

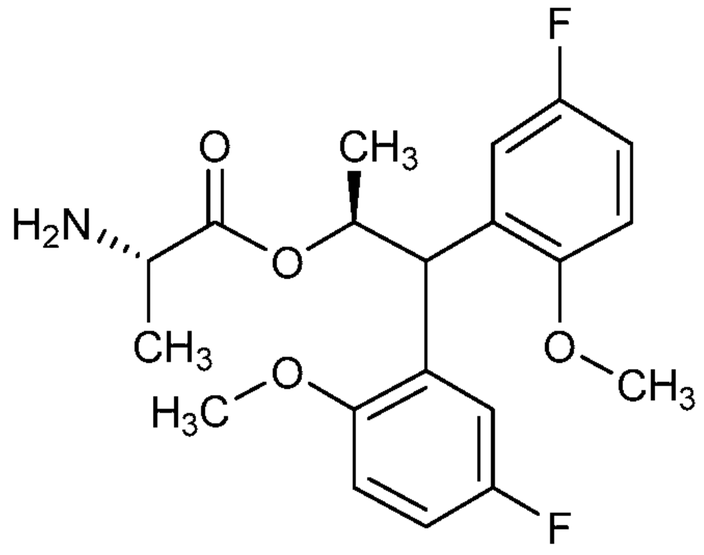
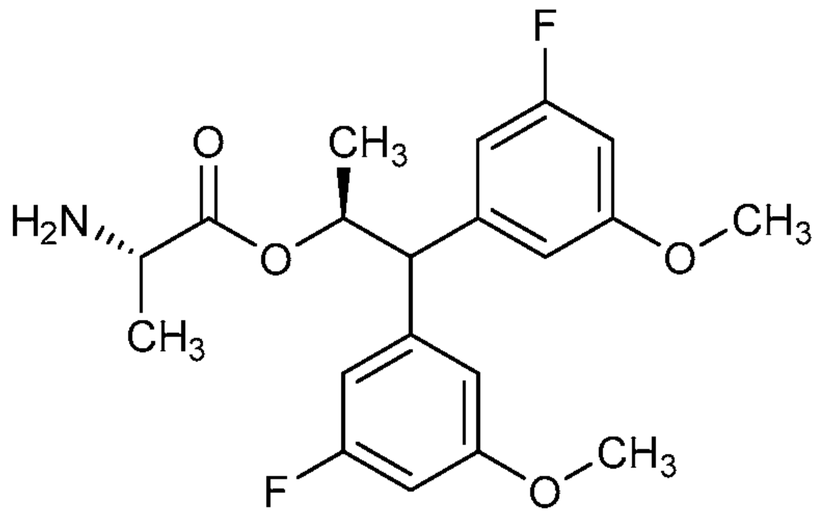
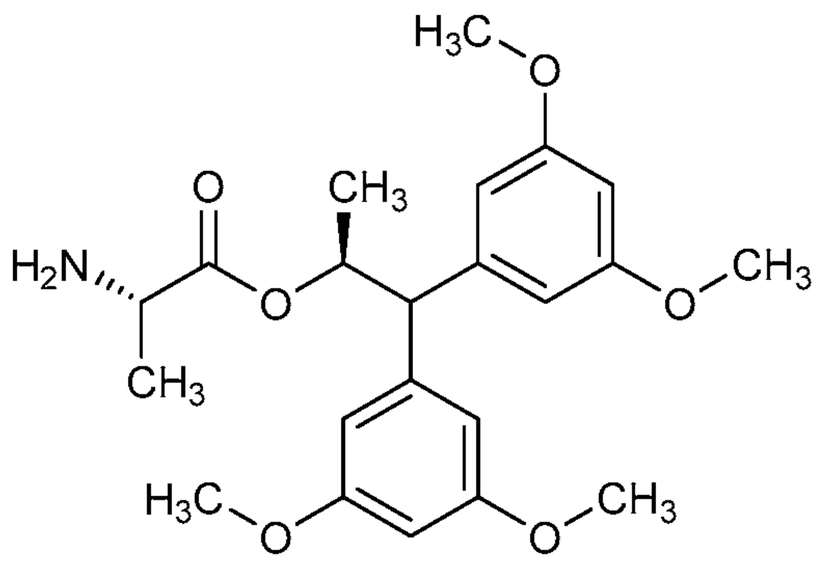
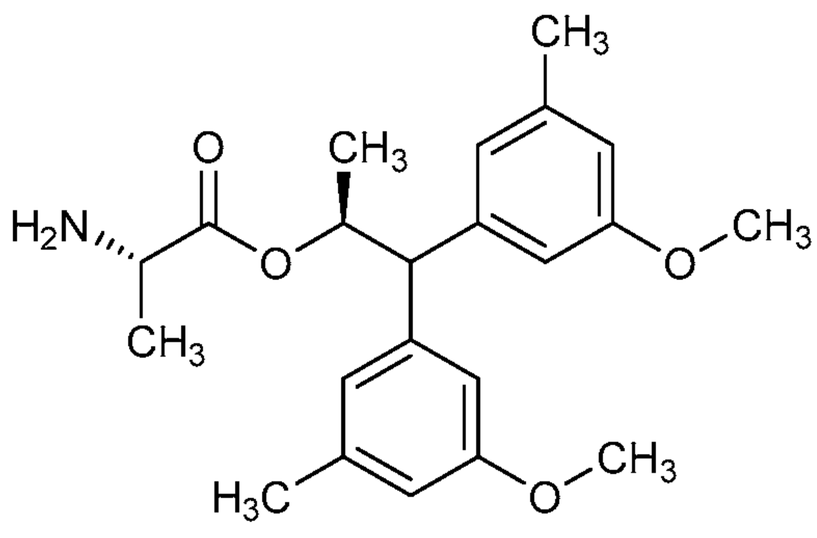
*Cmpd. No.	Structure	Prepared According To Example	Appearance
313		Example 5, Step 1.	White Powder
314		Example 5 Step 1.	White Semi-Solid
315		Example 5 Step 1.	White Semi-Solid
316		Example 5, Step 1.	Clear Glass

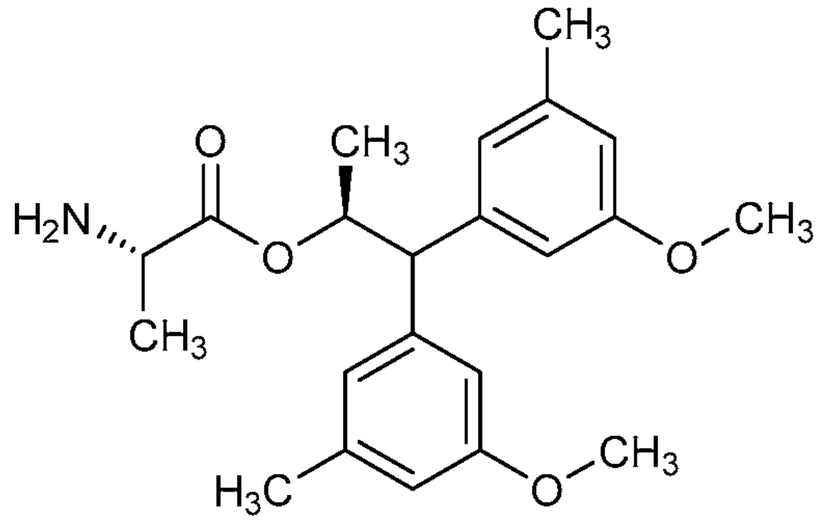
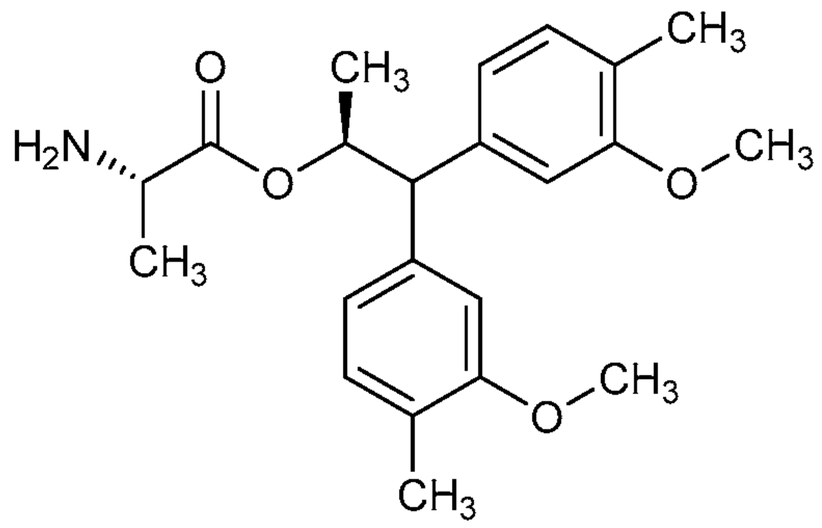
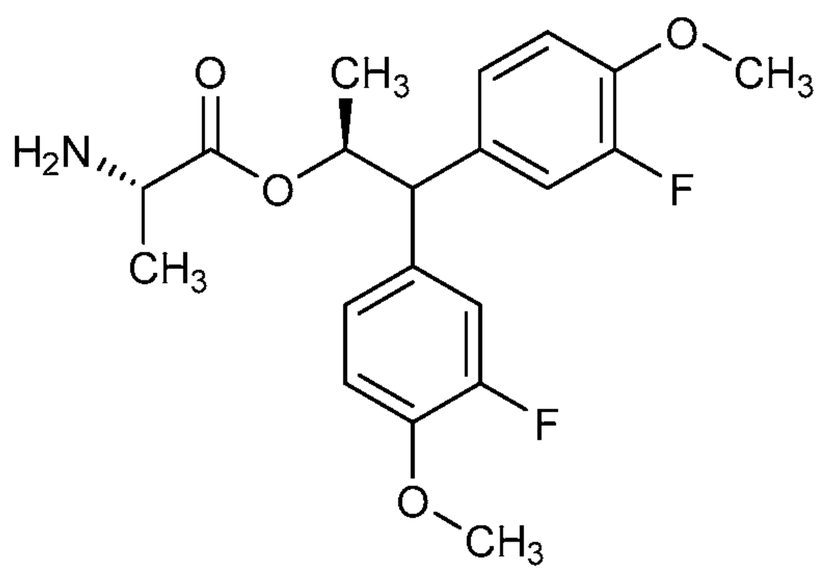
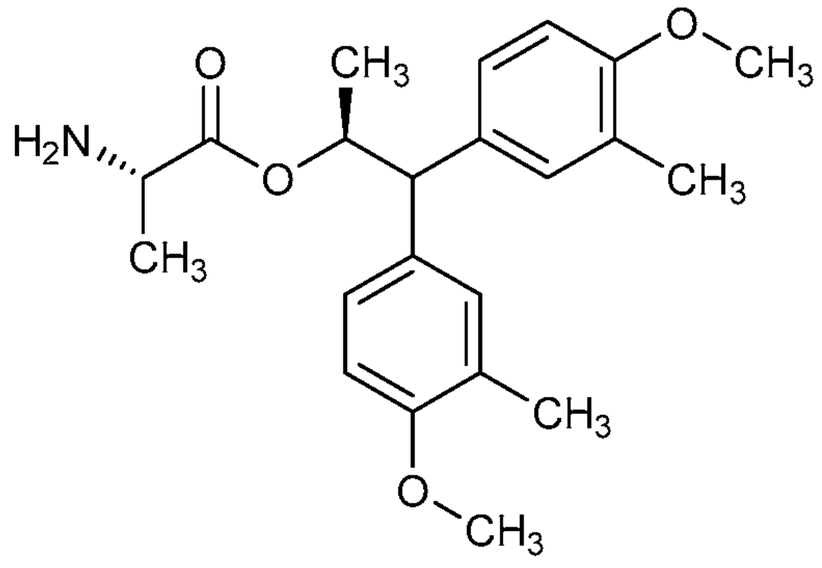
*Cmpd. No.	Structure	Prepared According To Example	Appearance
317		Example 1; Example 2A; Example 3A; Example 4A, Example 5, step 1.	Pale Purple Sticky Wax
318		Example 5 Step 1.	Colorless Oil
319		Example 5, Step 1	White Foam
320		Example 5, Step 1	White Foam

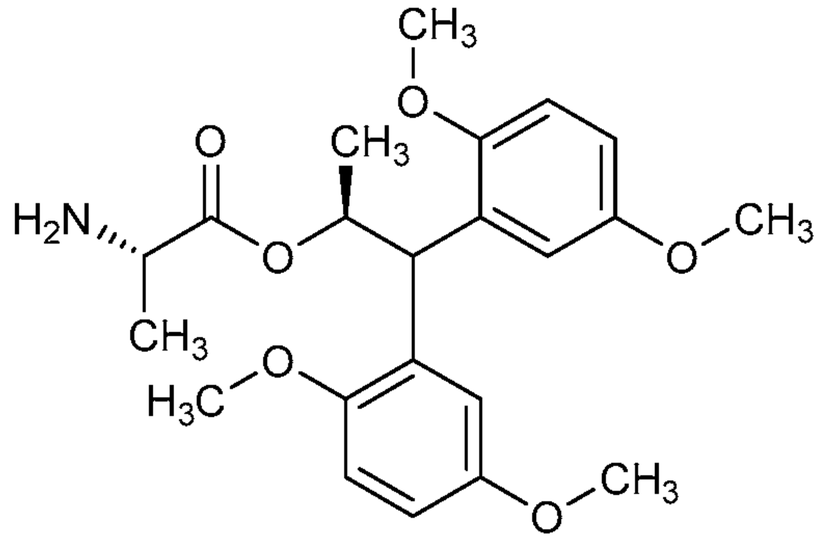
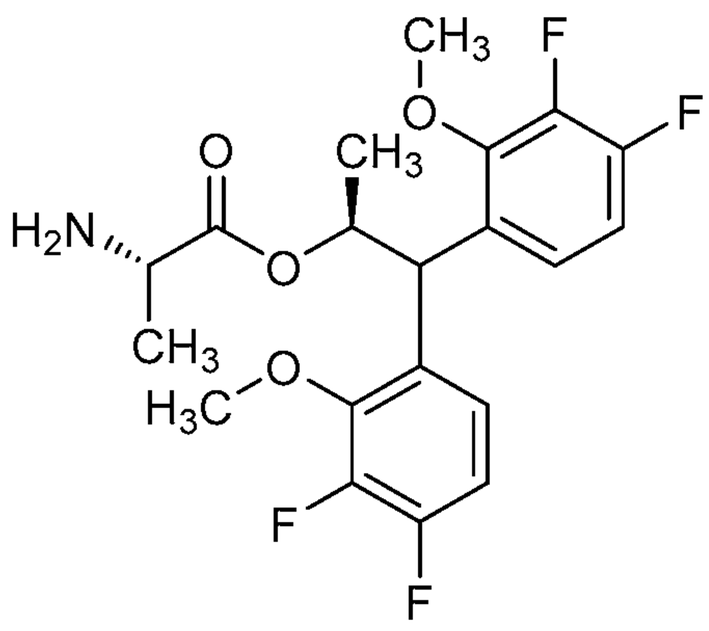
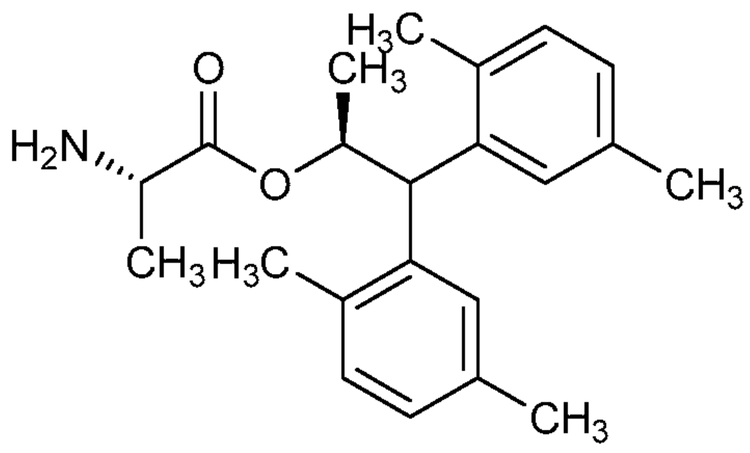
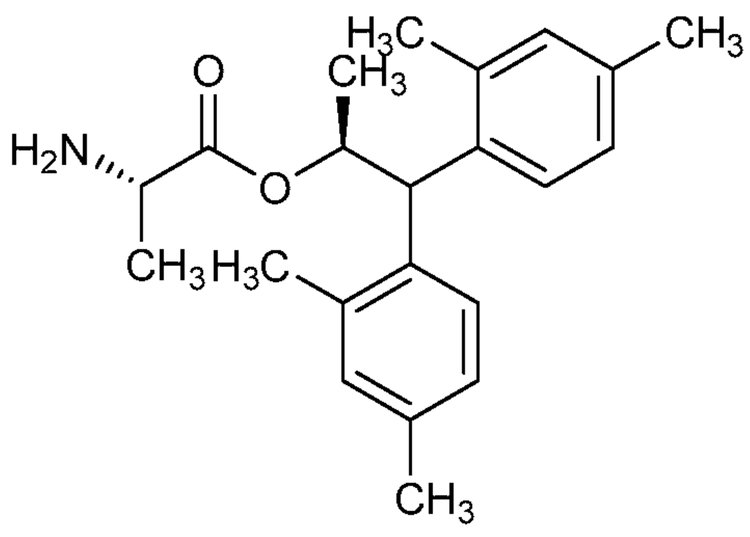
*Cmpd. No.	Structure	Prepared According To Example	Appearance
321		Example 5, Step 1	White Solid
322		Example 5, Step 1.	Colorless Oil
323		Example 5, Step 1.	Yellow Oil

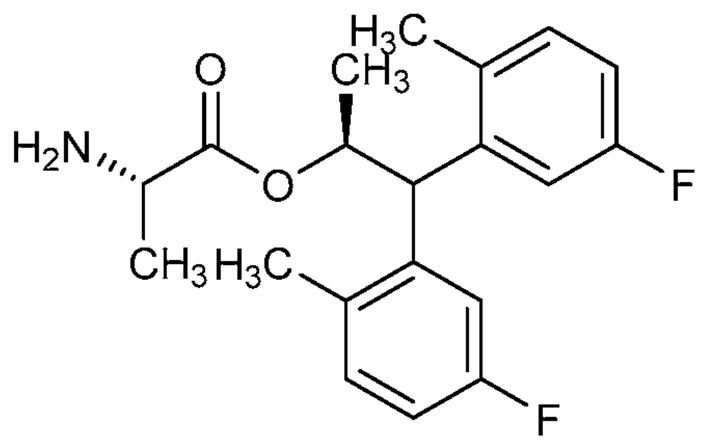
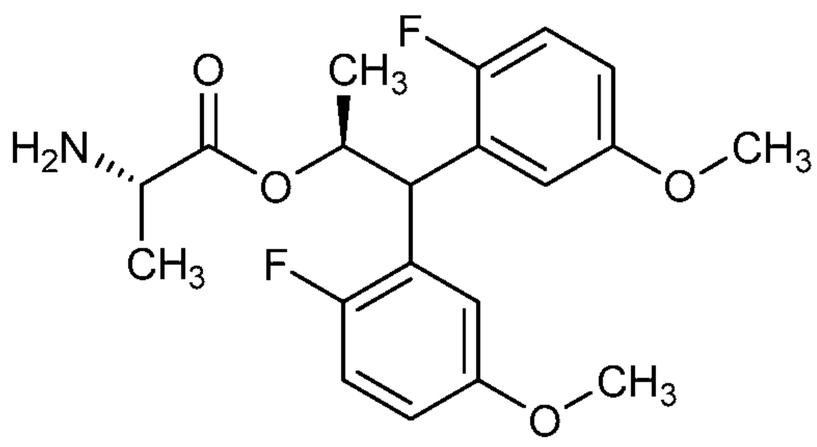
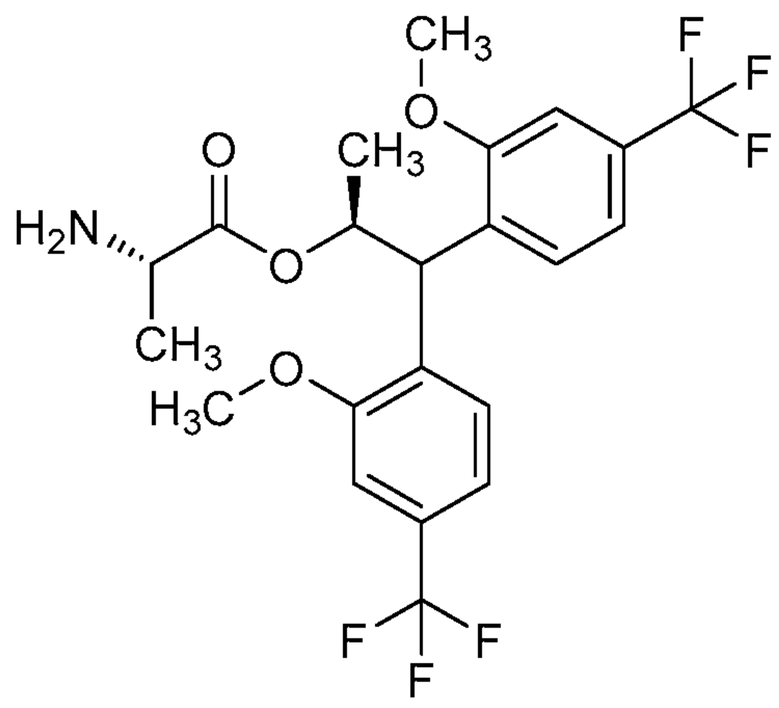
*Cmpd. No.	Structure	Prepared According To Example	Appearance
324		Example 5, Step 1.	Yellow Oil
325		Example 5, Step 1.	Yellow Oil
326		Example 5, Step 1.	Yellow Oil

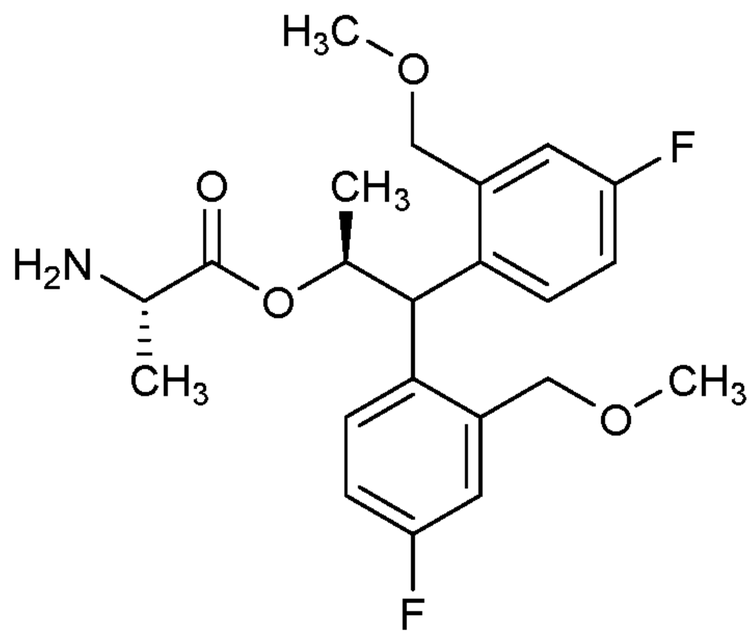
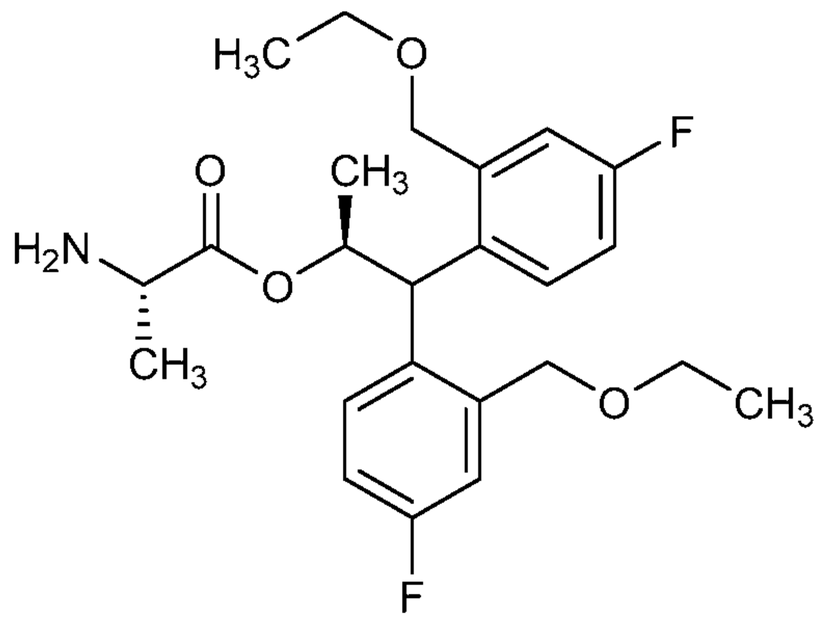
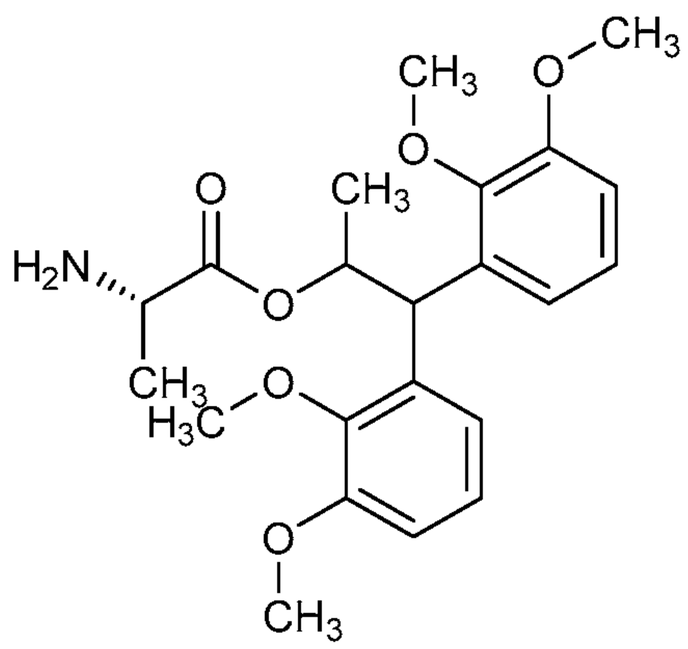
*Cmpd. No.	Structure	Prepared According To Example	Appearance
327		Example 5, Step 1	White Foam
328		Example 5, Step 1	White Foam
329		Example 5, Step 1	White Foam
330		Example 5, Step 1	White Foam

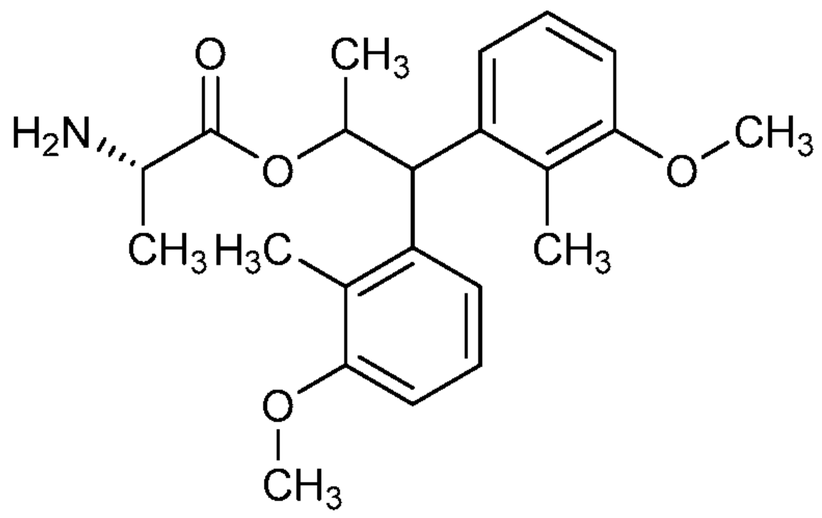
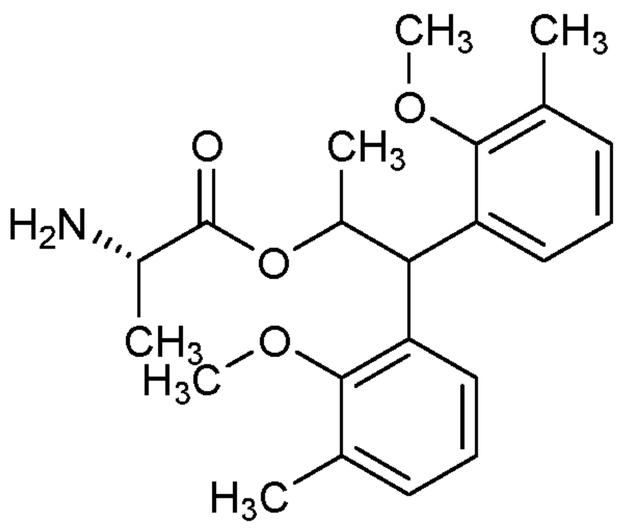
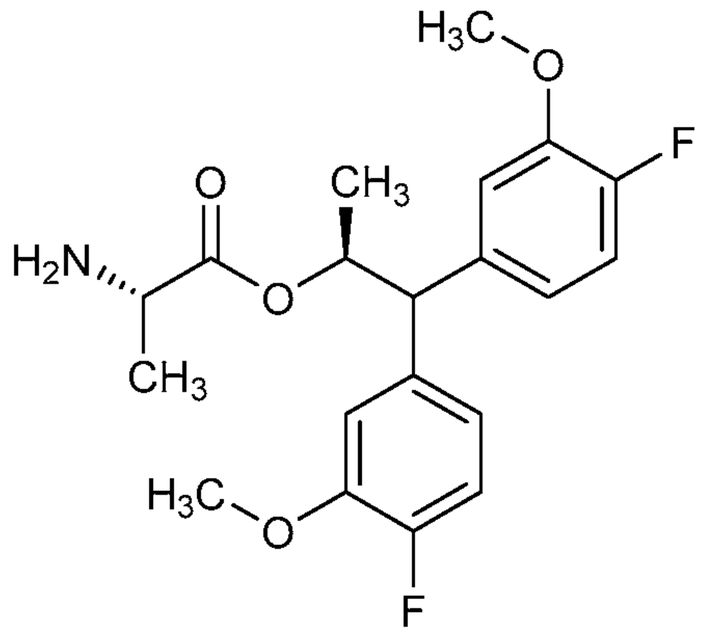
*Cmpd. No.	Structure	Prepared According To Example	Appearance
331		Example 5, Step 1	White Foam
332		Example 5, Step 1.	Clear, Colorless Oil
333		Example 5, Step 1.	Light Brown Oil
334		Example 5, Step 1.	Pale Yellow Oil

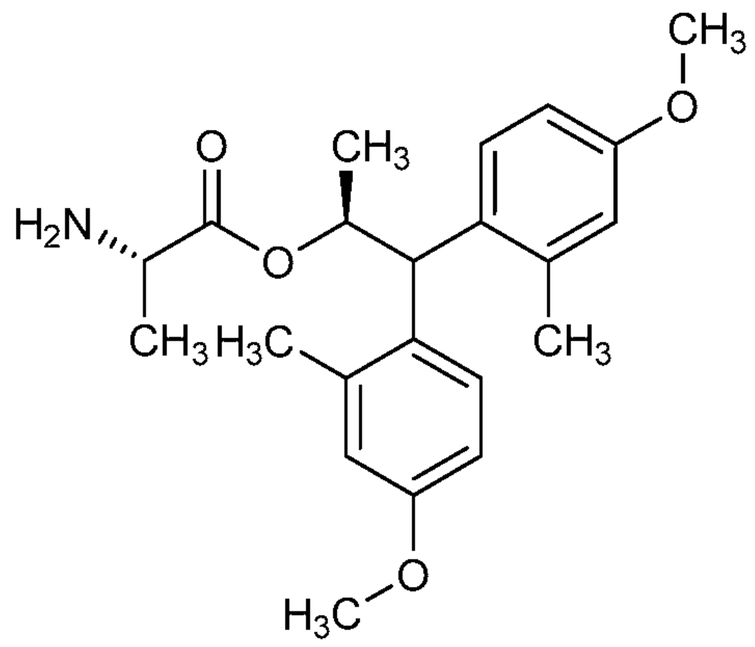
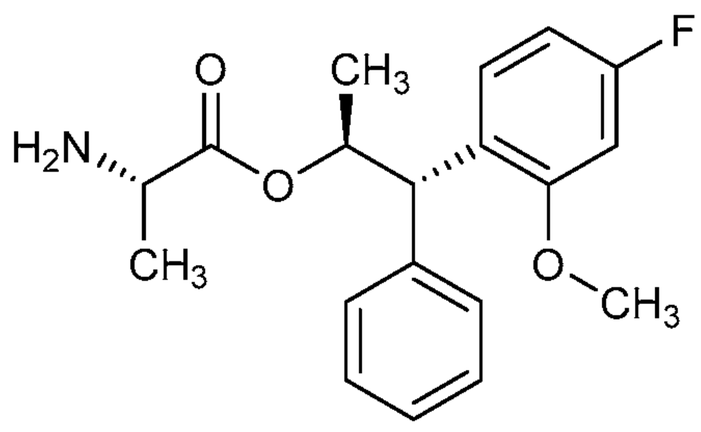
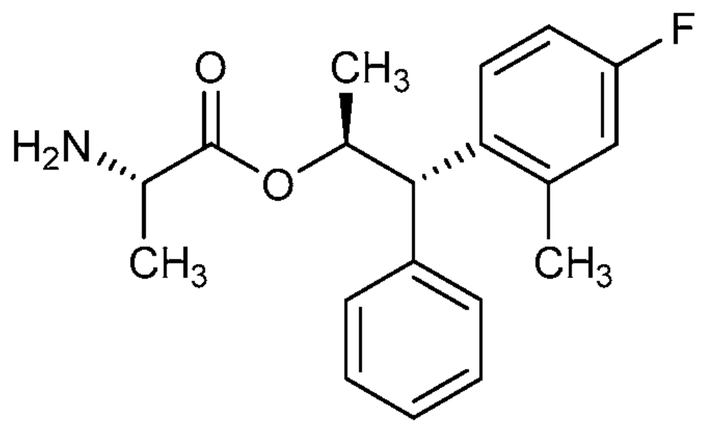
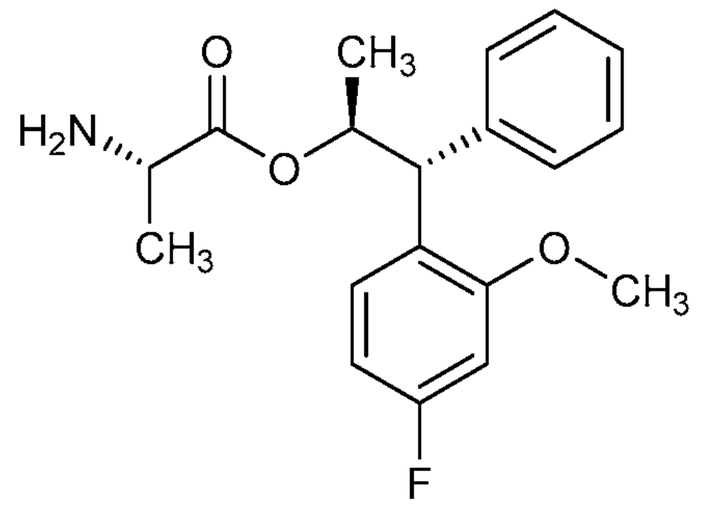
*Cmpd. No.	Structure	Prepared According To Example	Appearance
335		Example 5, Step 1.	Pale Yellow Oil
336		Example 5, Step 1.	White Powdery Solid
337		Example 5, Step 1.	Clear, Colorless Oil
338		Example 5, Step 1.	White Powdery Solid

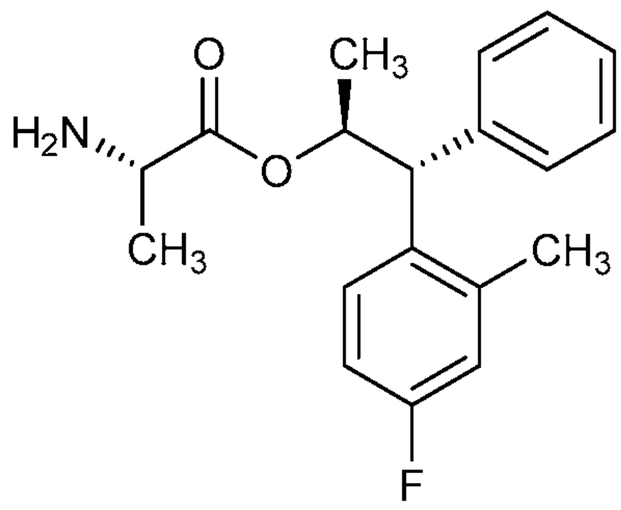
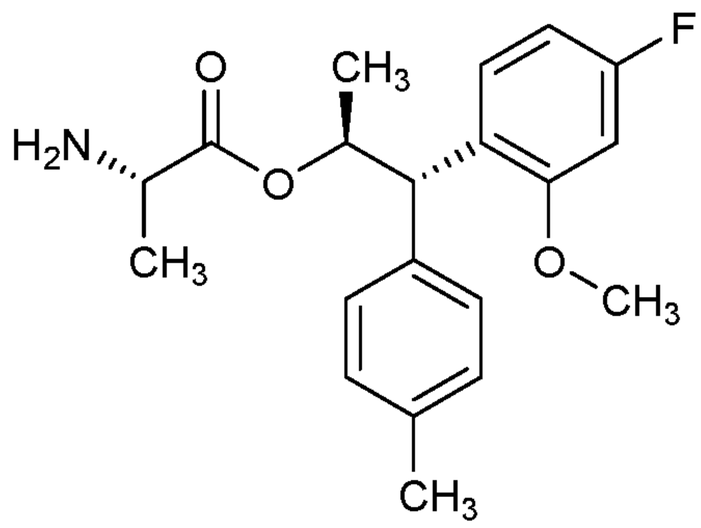
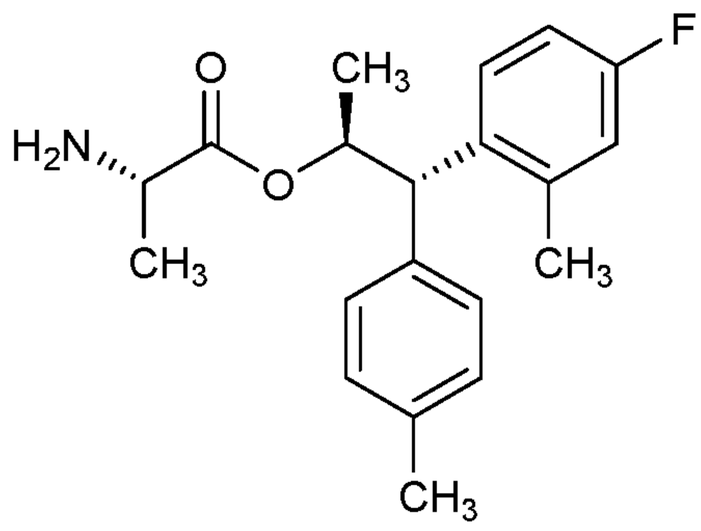
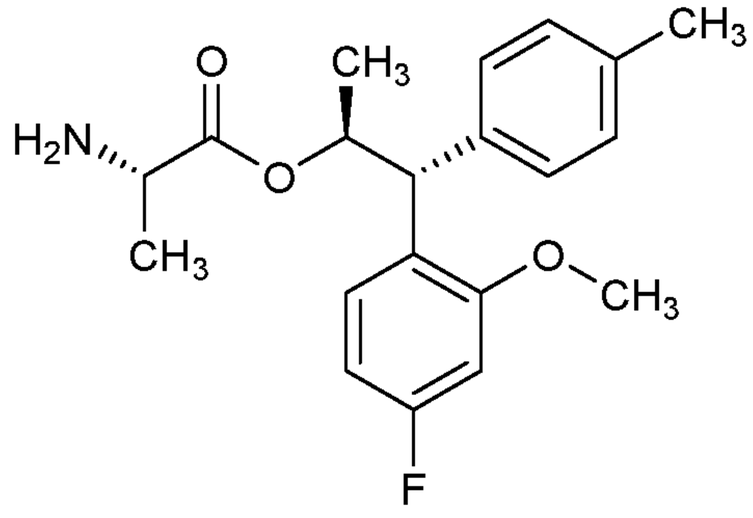
*Cmpd. No.	Structure	Prepared According To Example	Appearance
339		Example 5, Step 1.	Clear, Colorless Oil
340		Example 5, Step 1.	White Solid
341		Example 5, Step 1.	Thick Oil
342		Example 5, Step 1.	White Solid

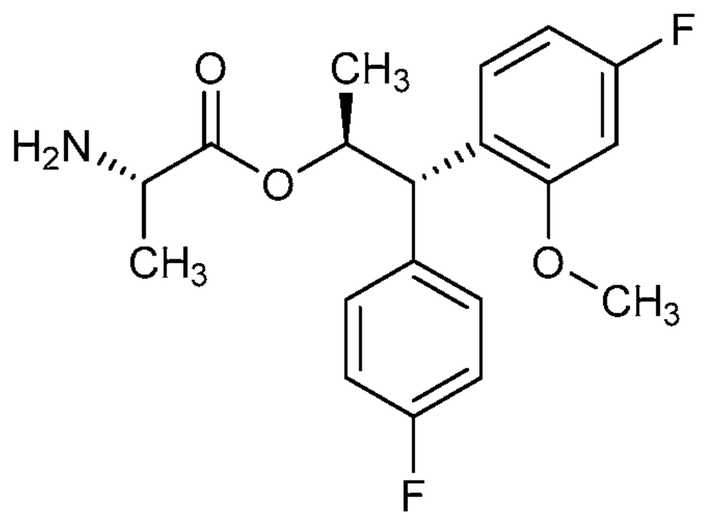
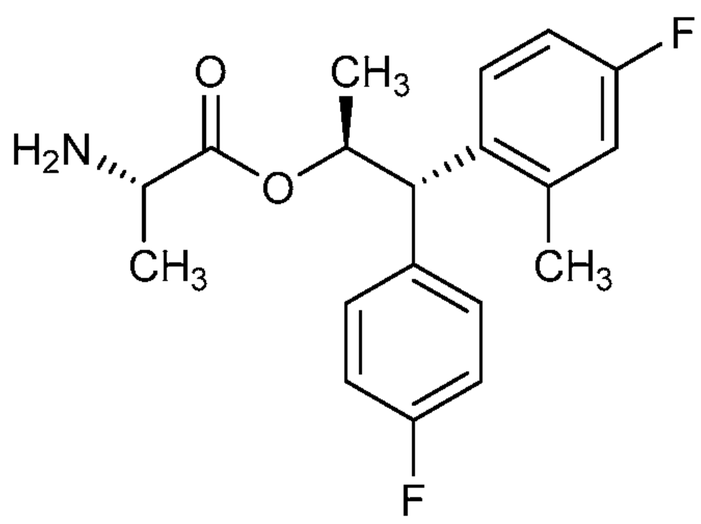
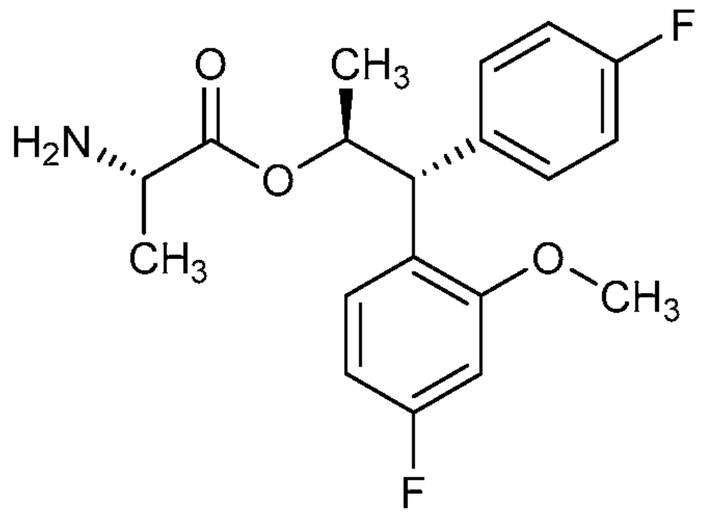
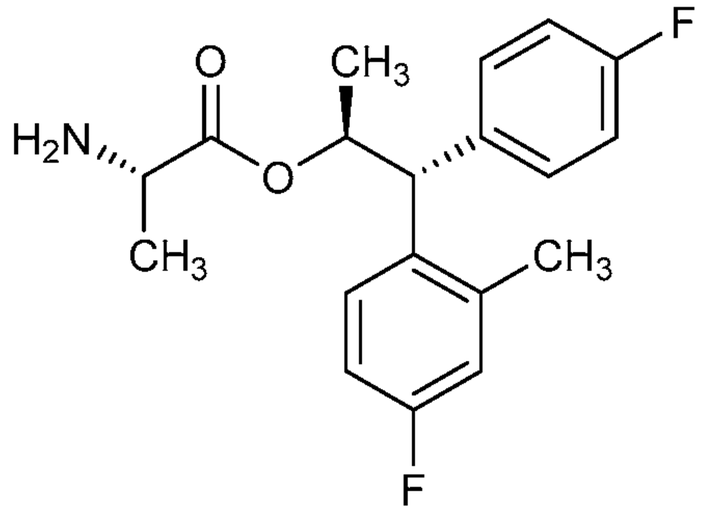
*Cmpd. No.	Structure	Prepared According To Example	Appearance
343		Example 5, Step 1.	White Solid
344		Example 5, Step 1.	White Solid
345		Example 5, Step 1.	White Solid
346		Example 5, Step 1.	Thick Oil

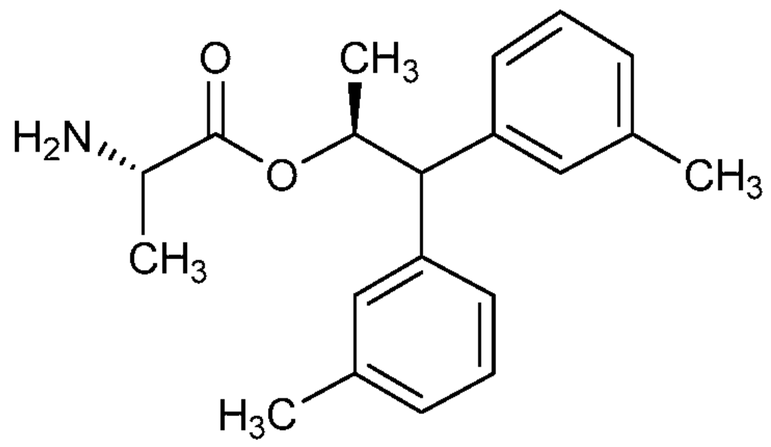
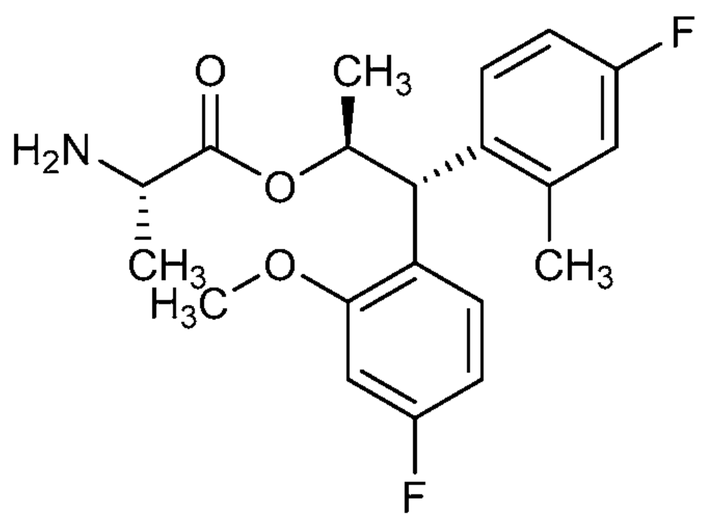
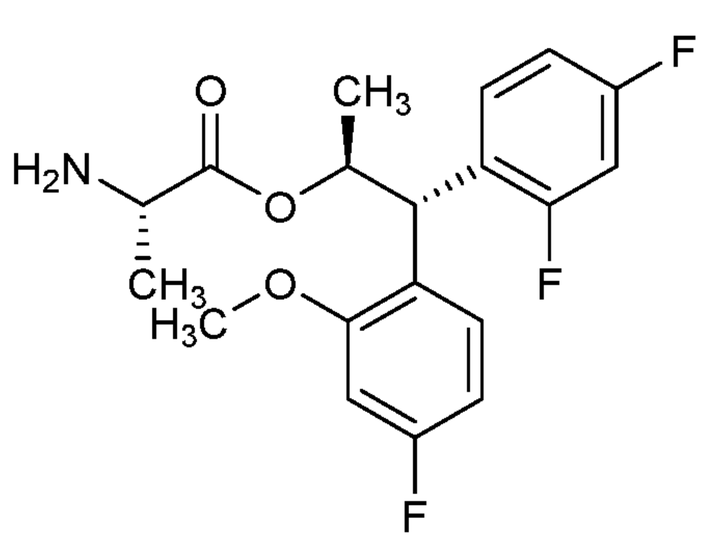
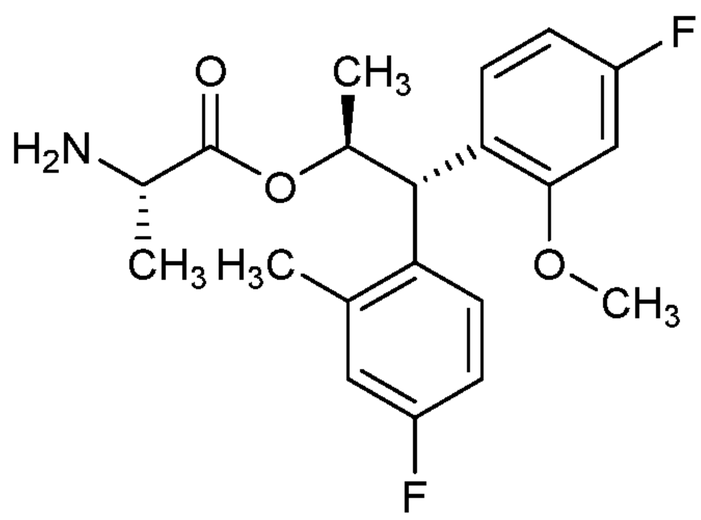
*Cmpd. No.	Structure	Prepared According To Example	Appearance
347		Example 5, Step 1.	White Solid
348		Example 5, Step 1.	White Solid
349		Example 5, Step 1	Oil

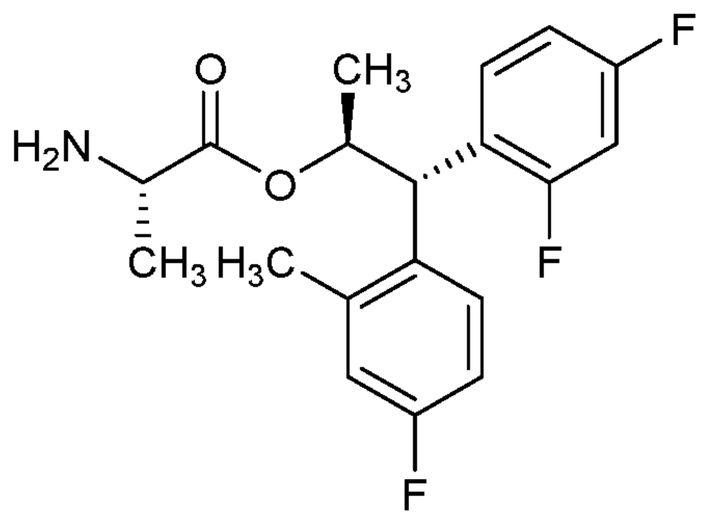
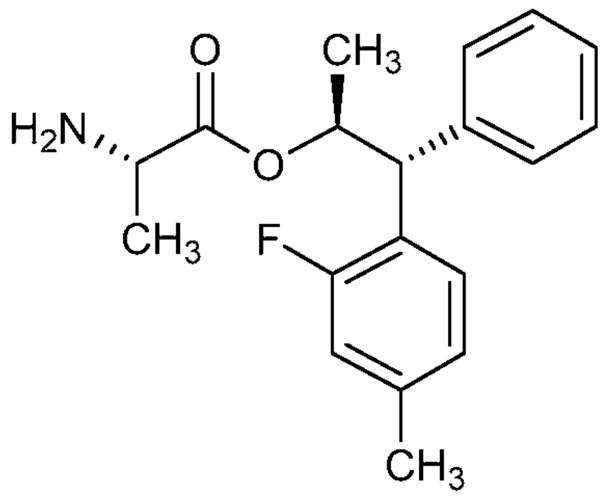
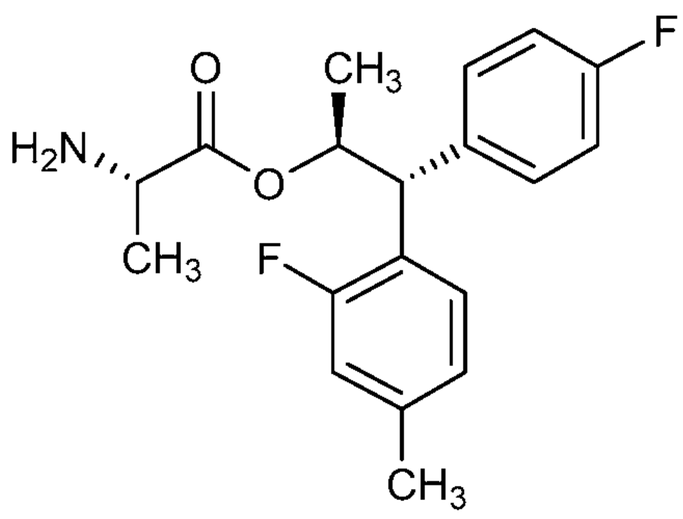
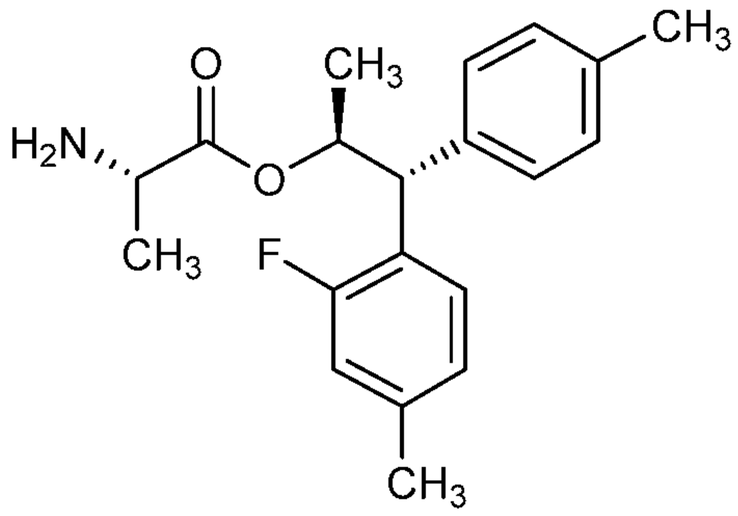
*Cmpd. No.	Structure	Prepared According To Example	Appearance
350		Example 5, Step 1	Oil
351		Example 5, Step 1	Oil
352		Example 5, Step 1	Colorless Oil

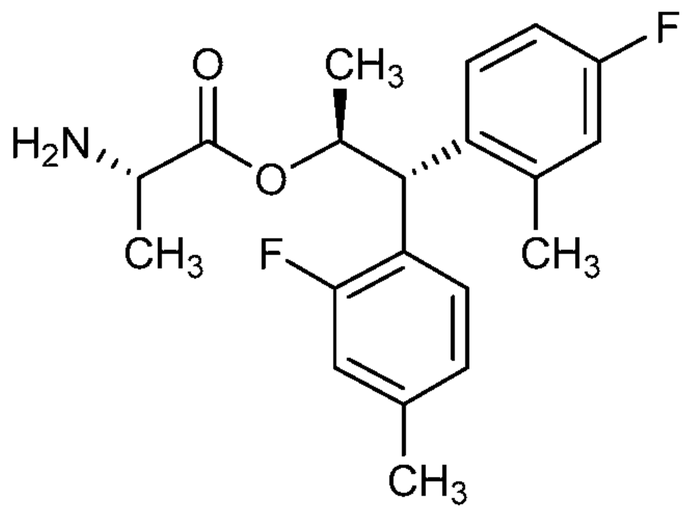
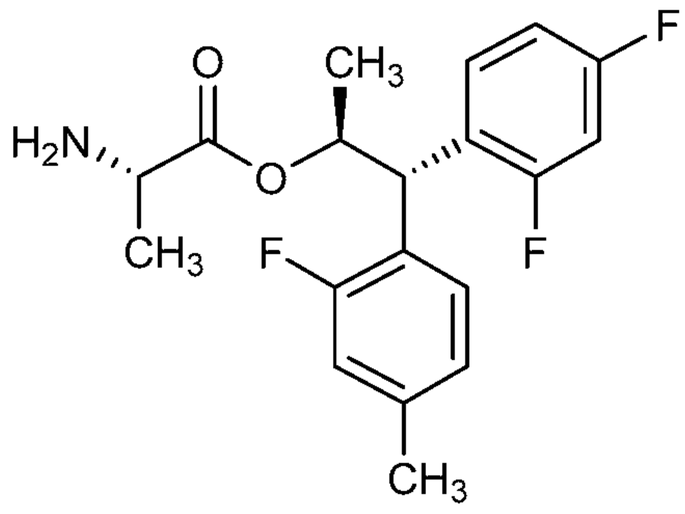
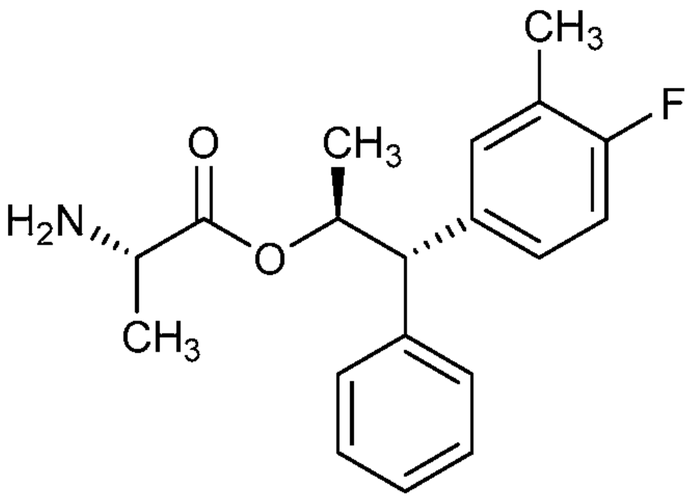
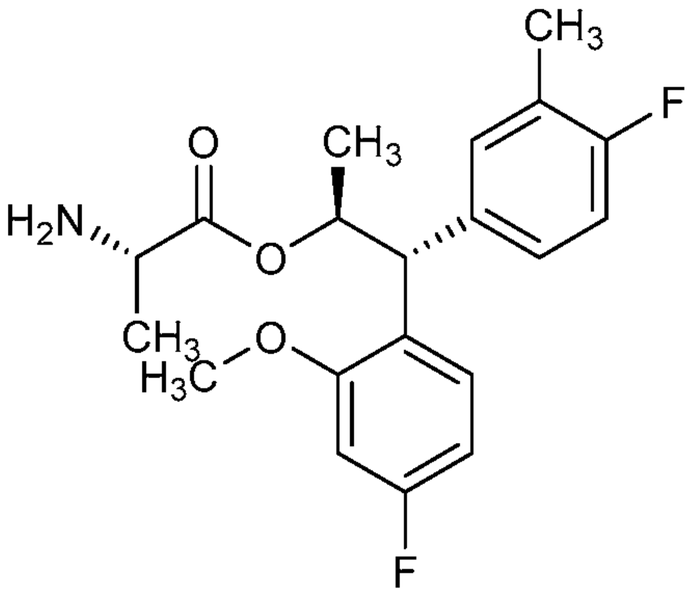
*Cmpd. No.	Structure	Prepared According To Example	Appearance
353		Example 5, Step 1	Colorless Oil
354		Example 5, Step 1	Colorless Oil
355		Example 5, Step 1	Colorless Oil
356		Example 5, Step 1	Colorless Oil

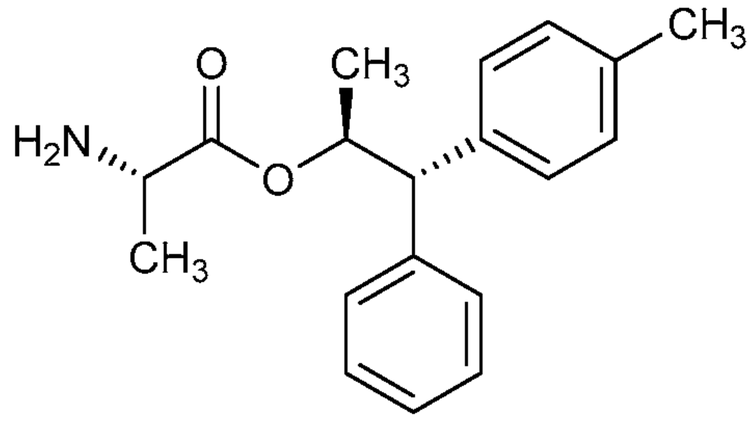
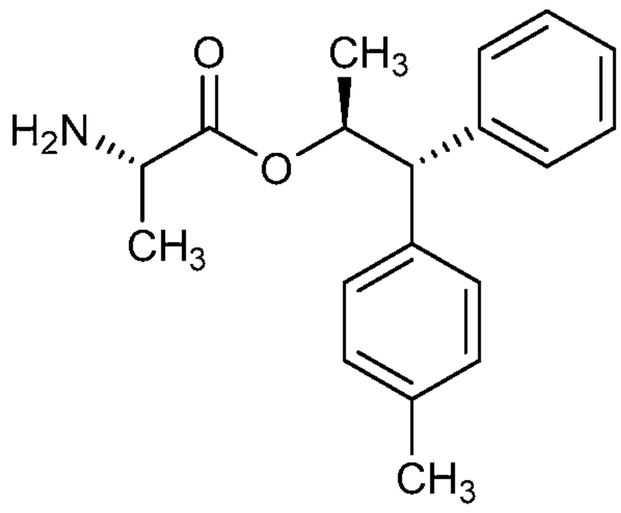
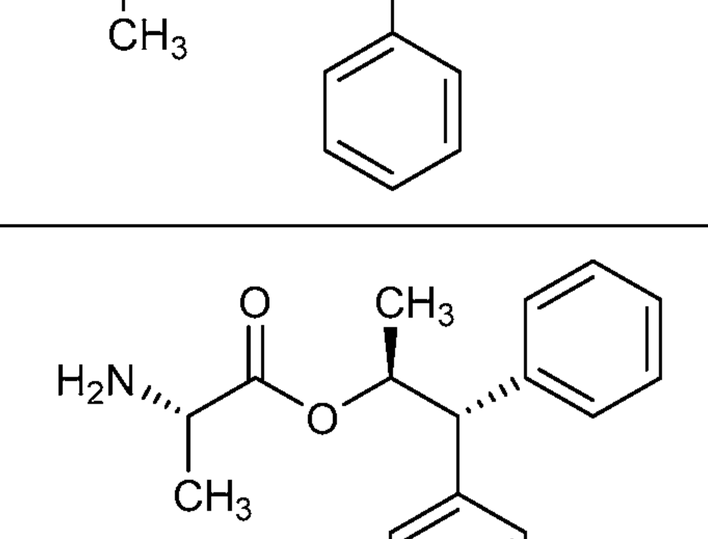
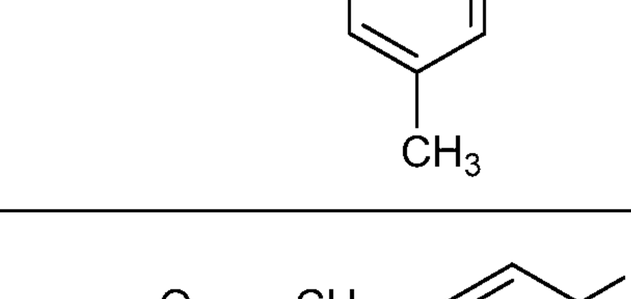
*Cmpd. No.	Structure	Prepared According To Example	Appearance
357		Example 5, Step 1	Colorless Oil
358		Example 5, Step 1	Colorless Oil
359		Example 5, Step 1	Colorless Oil
360		Example 5, Step 1	Colorless Oil

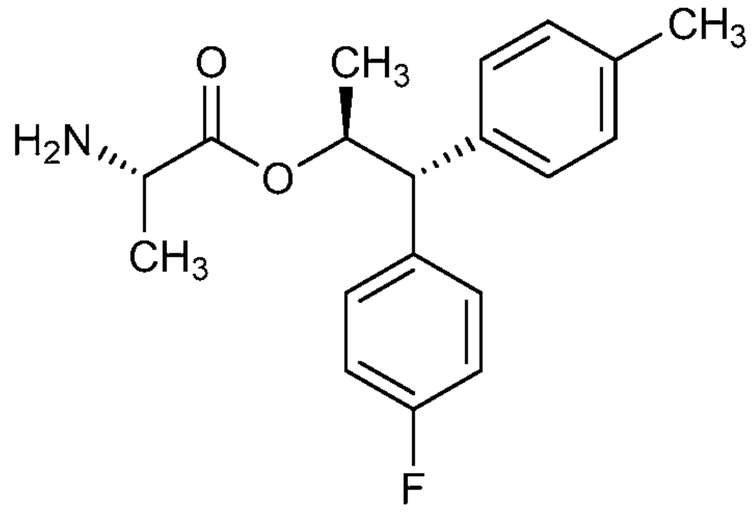
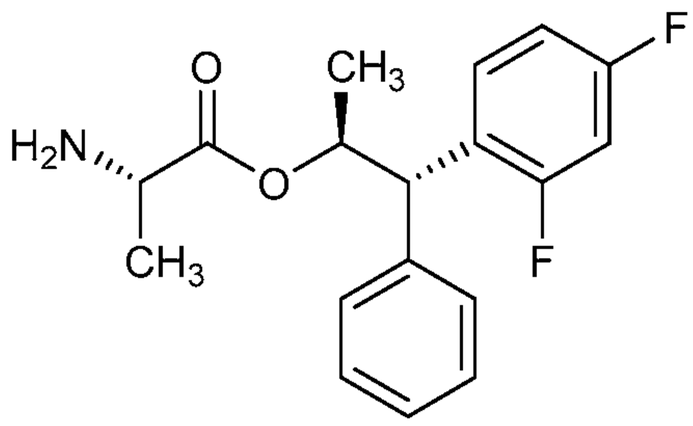
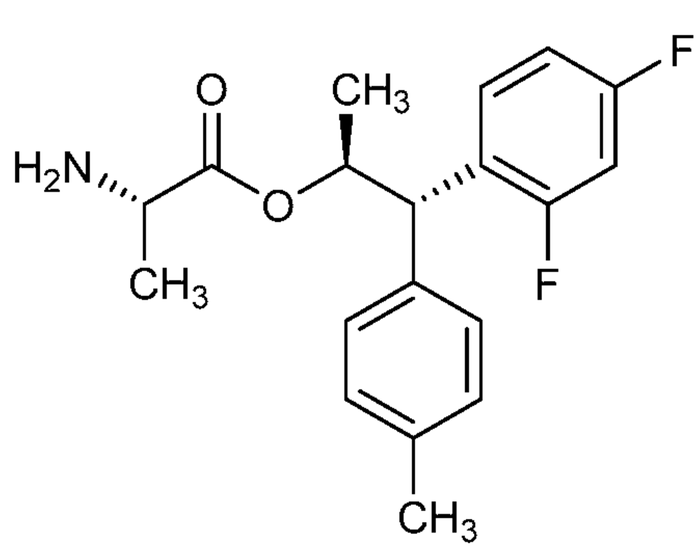
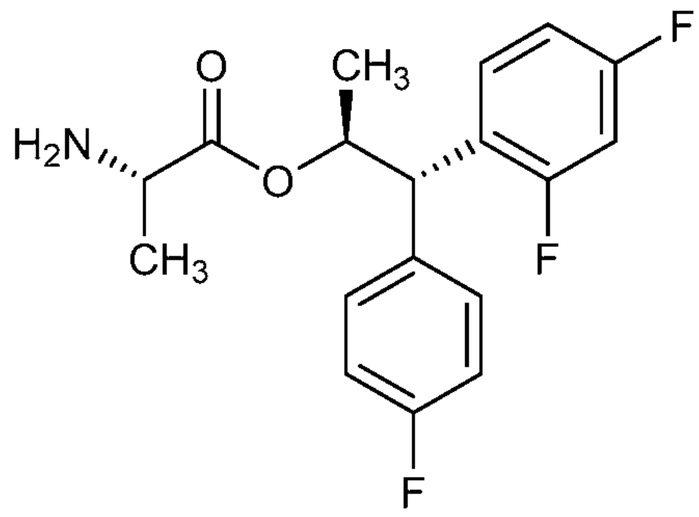
*Cmpd. No.	Structure	Prepared According To Example	Appearance
361		Example 5, Step 1	Colorless Foam
362		Example 5, Step 1	Colorless Foam
363		Example 5, Step 1	Colorless Oil
364		Example 5, Step 1	Colorless Oil

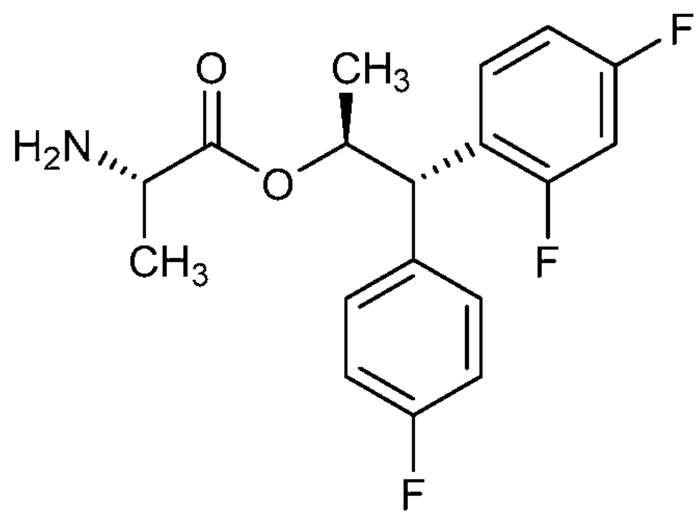
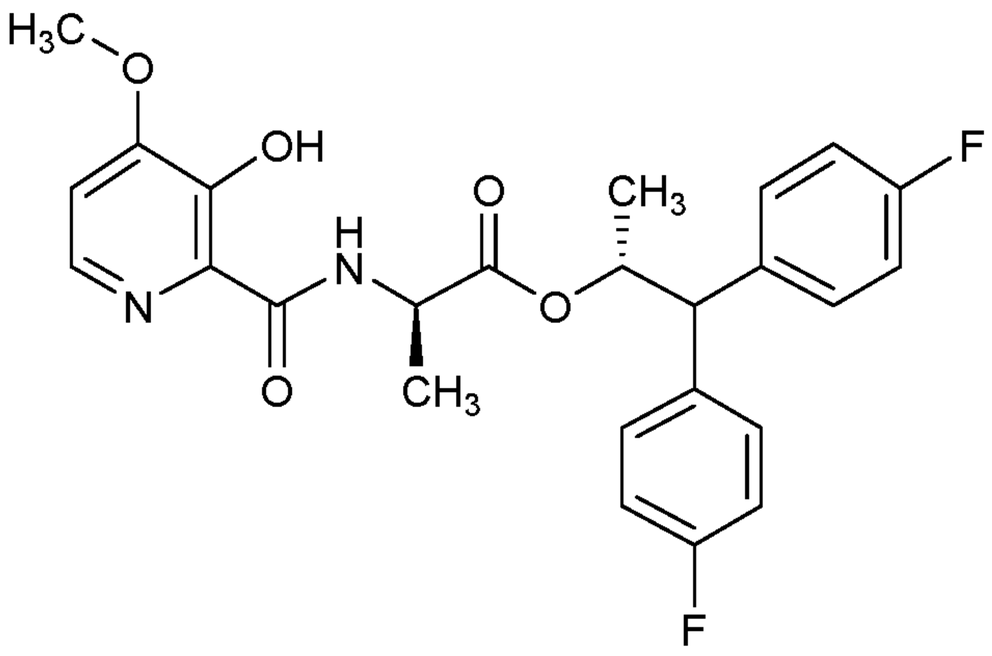
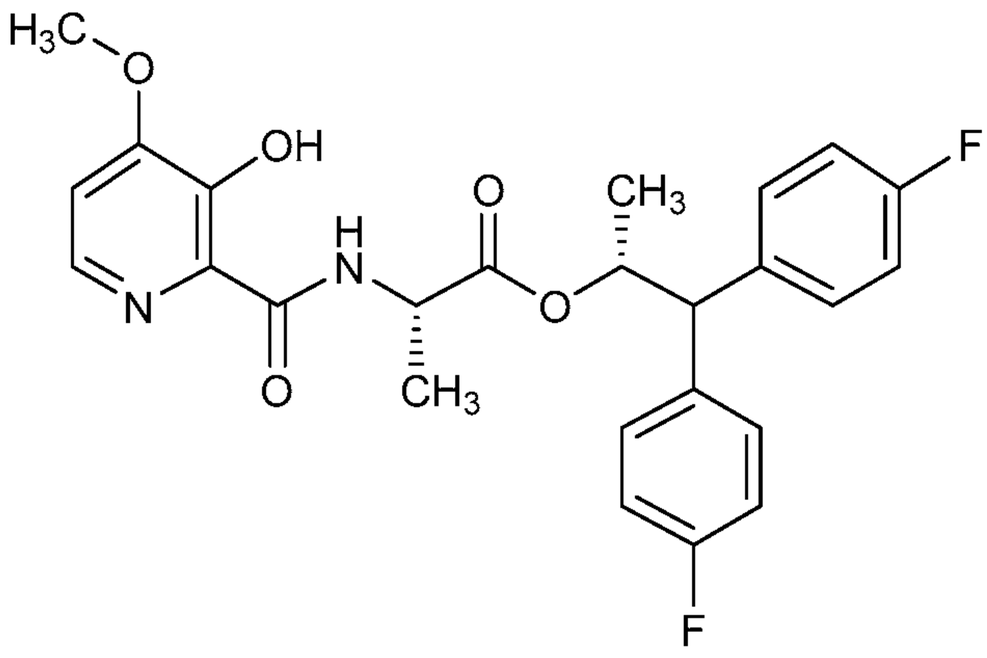
*Cmpd. No.	Structure	Prepared According To Example	Appearance
365		Example 5, Step 1	White Foam
366		Example 5, Step 1.	Sticky Wax
367		Example 5, Step 1.	Sticky Wax
368		Example 5, Step 1.	Sticky Wax

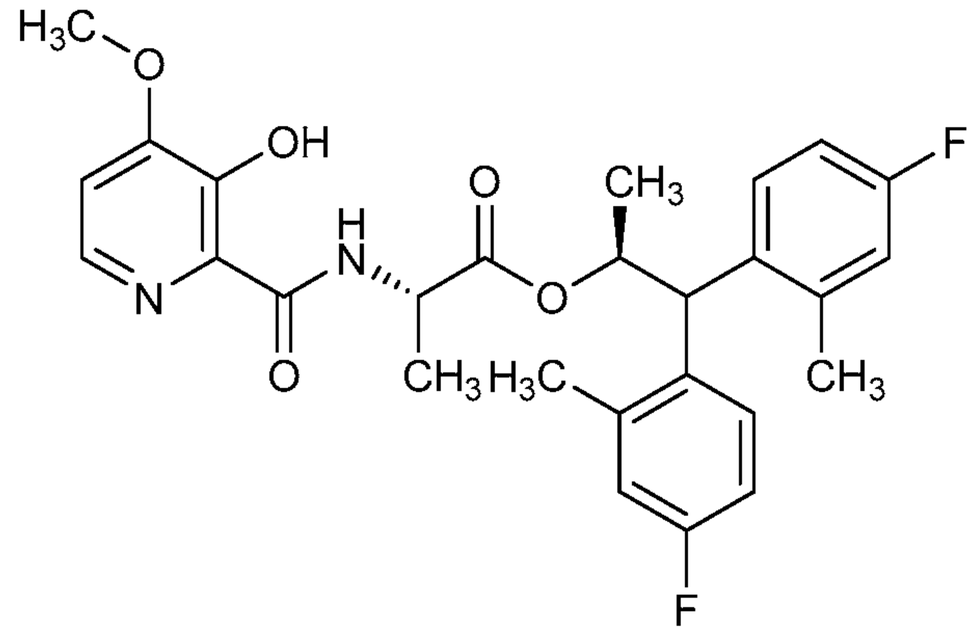
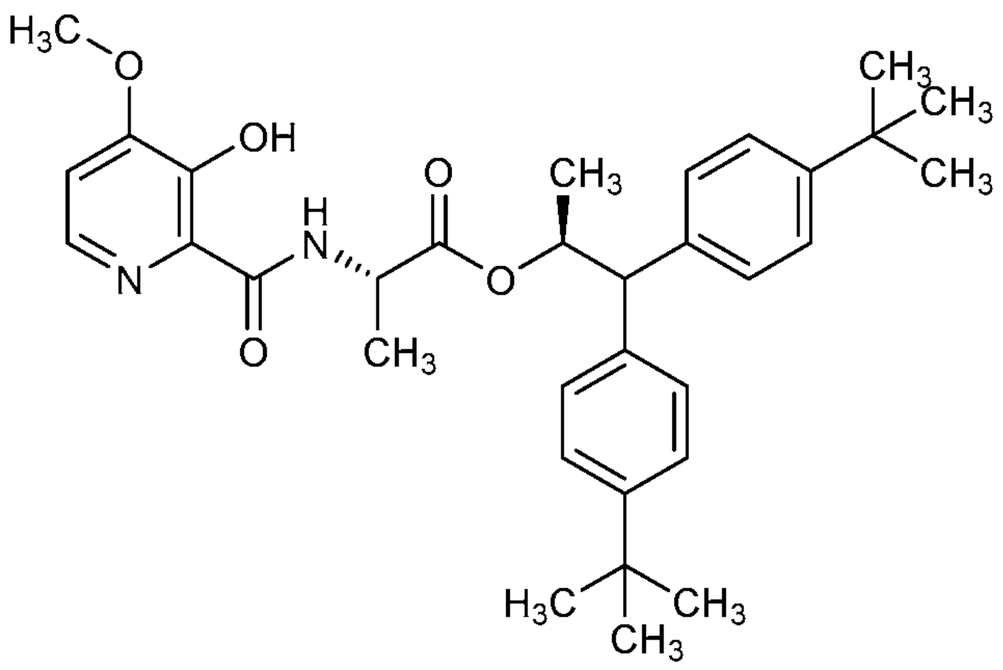
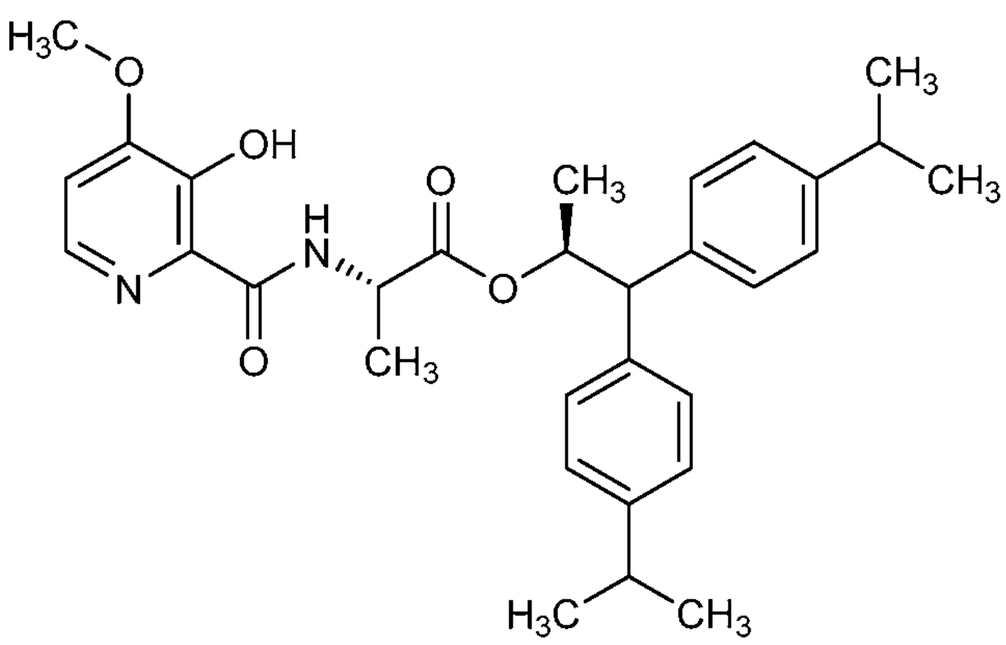
*Cmpd. No.	Structure	Prepared According To Example	Appearance
369		Example 5, Step 1.	Sticky Wax
370		Example 5, Step 1	White Foam
371		Example 5, Step 1	White Foam
372		Example 5, Step 1	White Foam

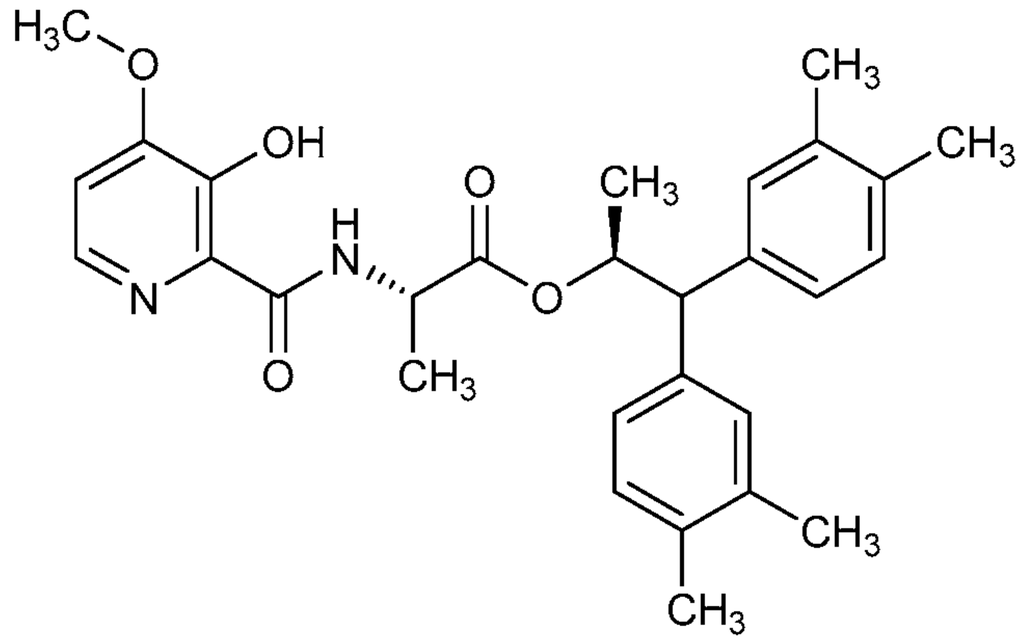
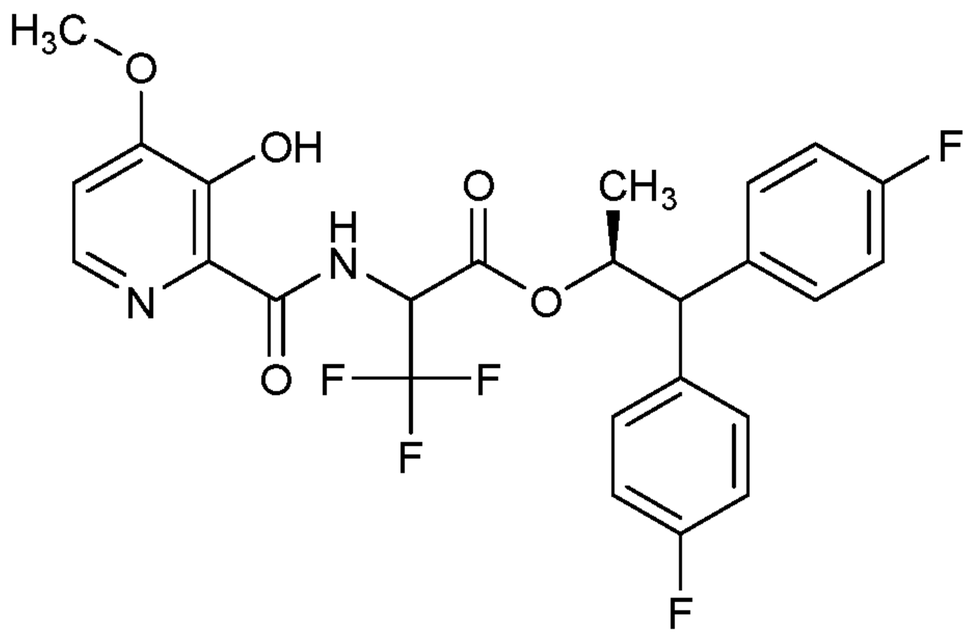
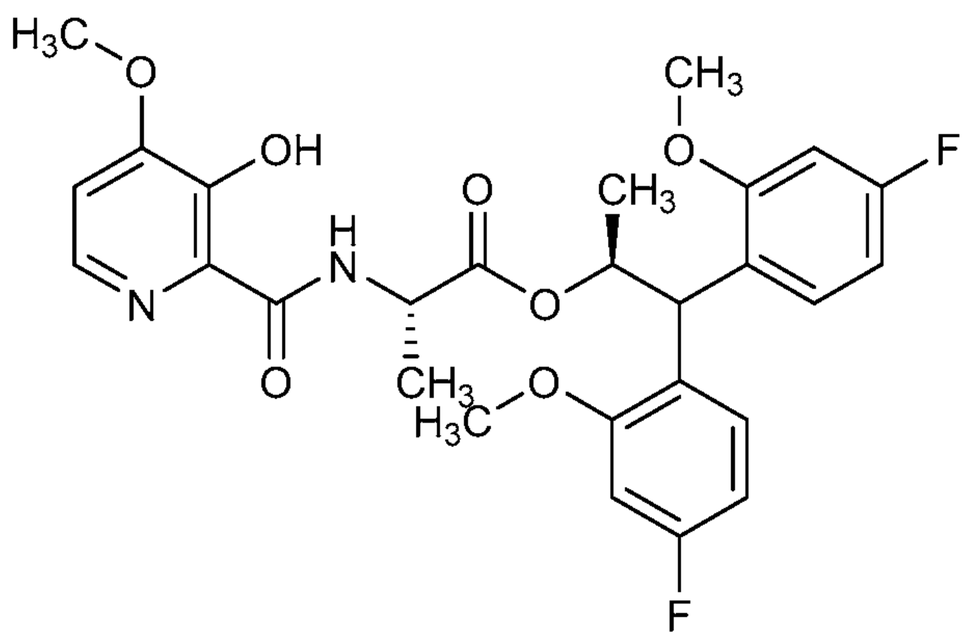
*Cmpd. No.	Structure	Prepared According To Example	Appearance
373		Example 5, Step 1	White Foam
374		Example 5, Step 1	White Foam
375		Example 5, Step 1	Colorless Oil
376		Example 5, Step 1	Colorless Oil

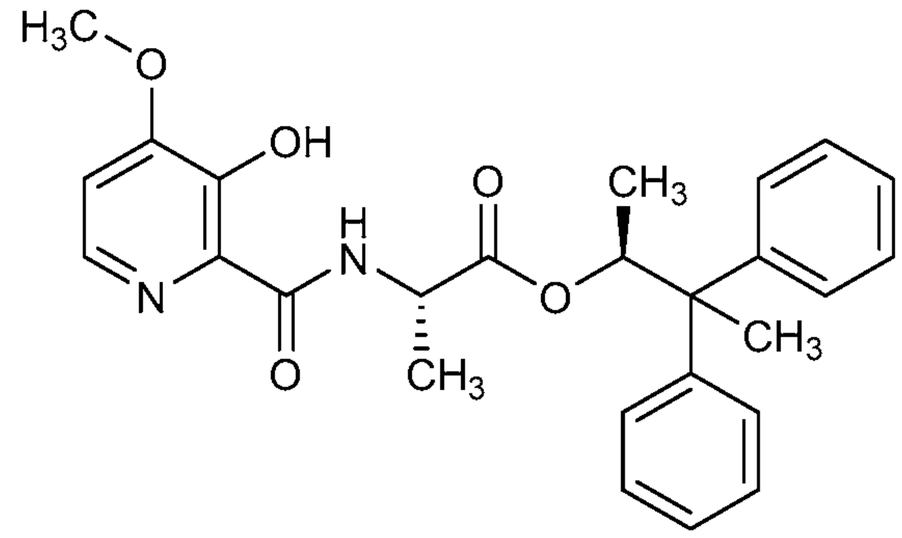
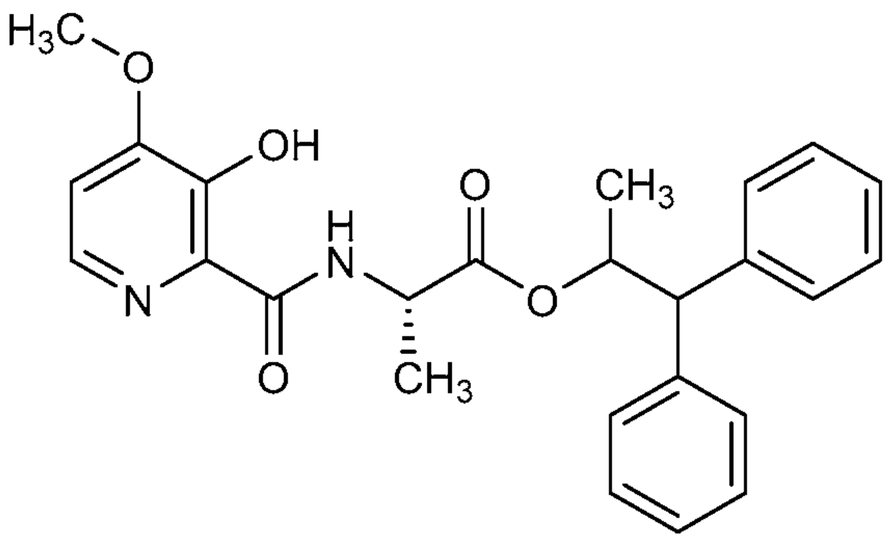
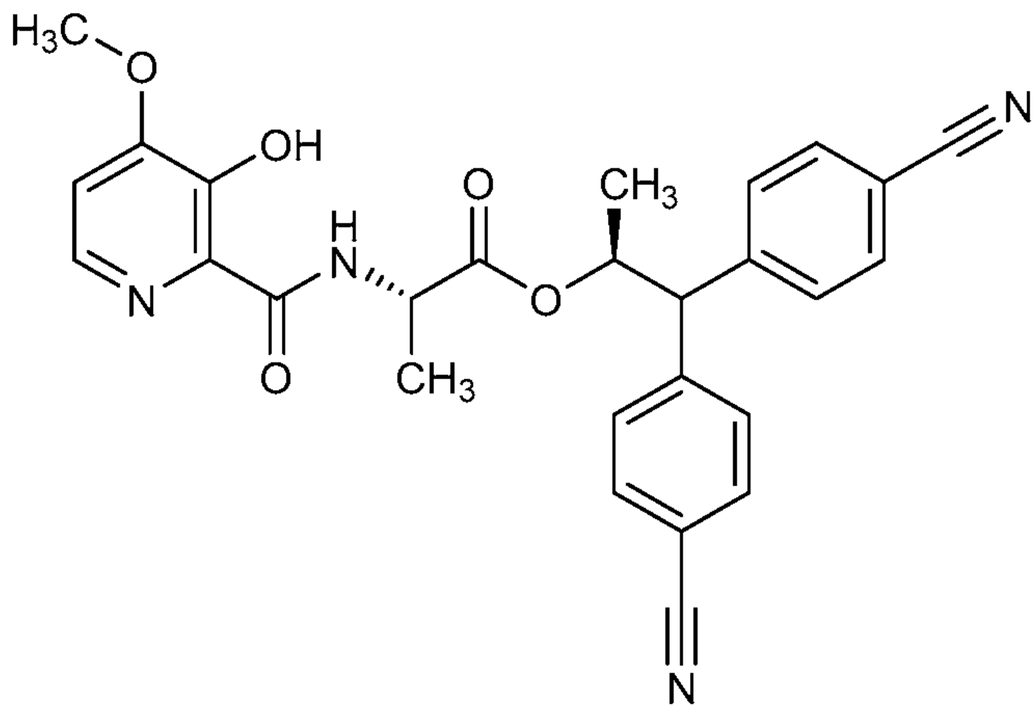
*Cmpd. No.	Structure	Prepared According To Example	Appearance
377		Example 5, Step 1.	Thick Oil
378		Example 5, Step 1.	Thick Oil
379		Example 5, Step 1.	White Solid
380		Example 5, Step 1.	Thick Oil

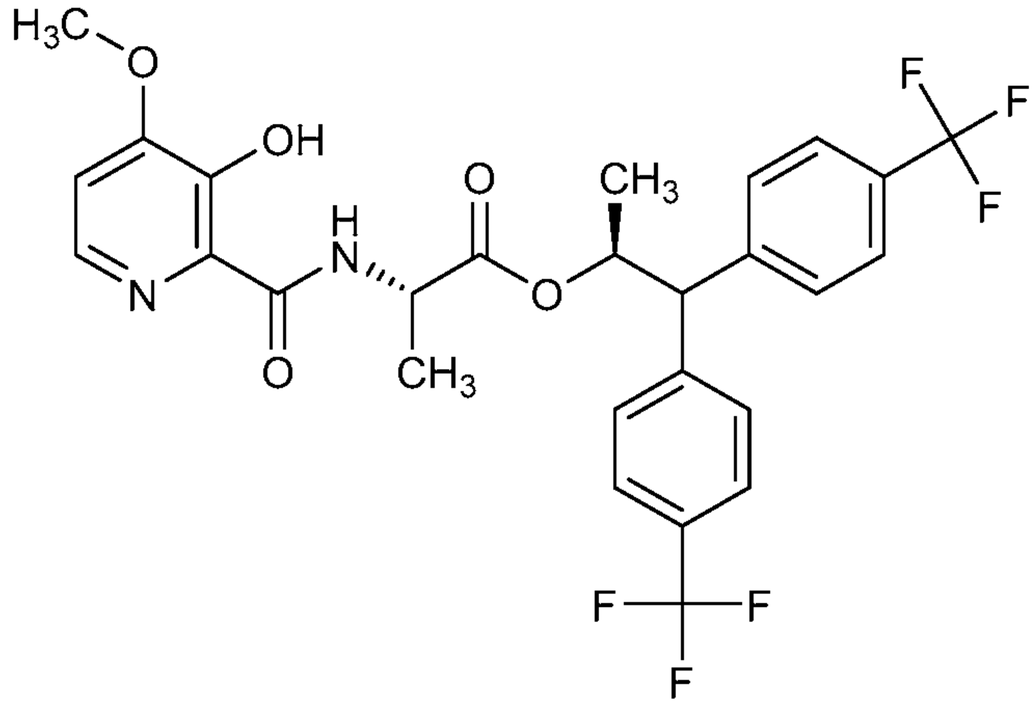
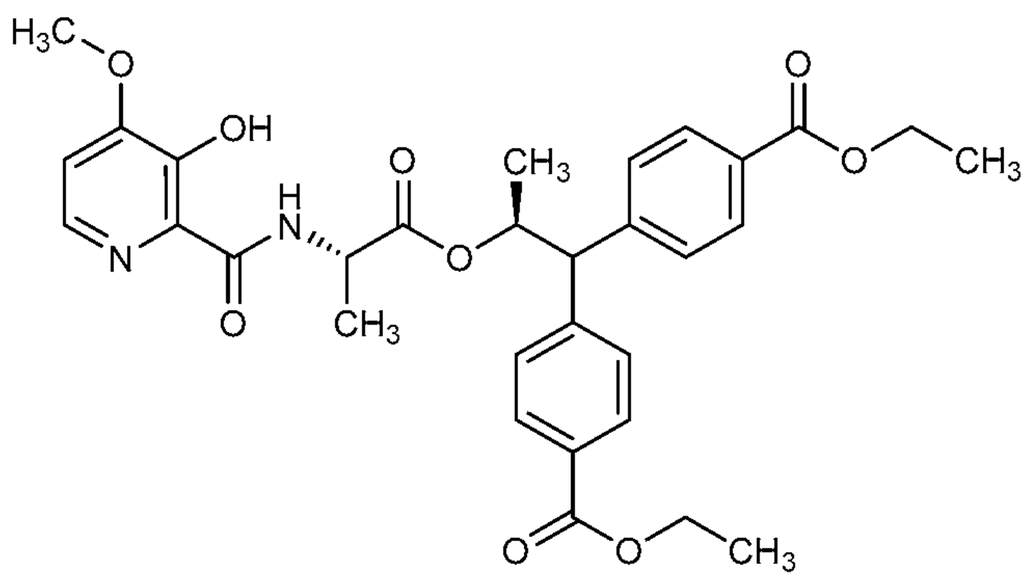
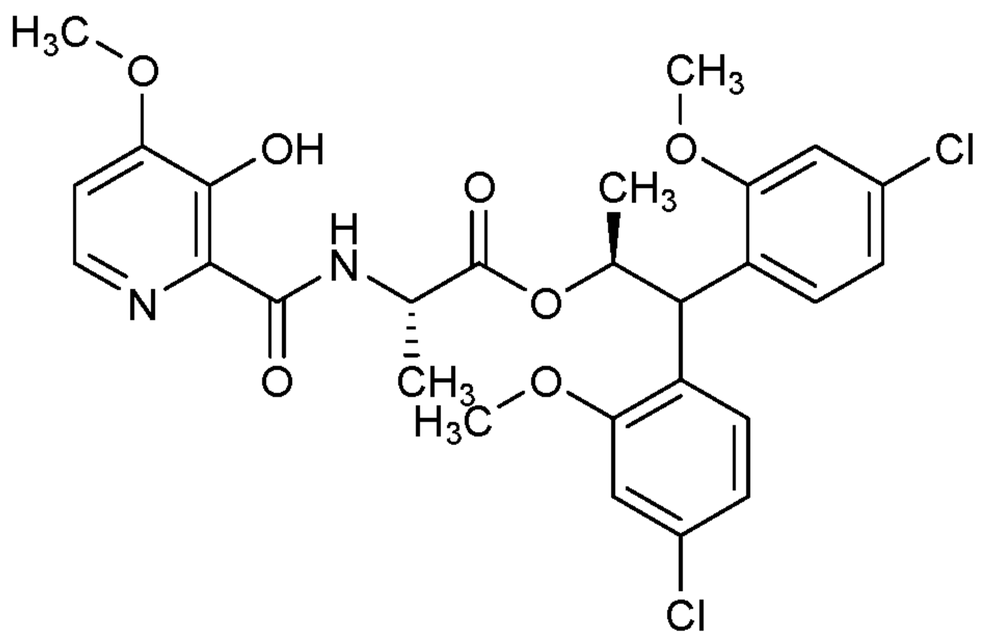
*Cmpd. No.	Structure	Prepared According To Example	Appearance
381		Example 5, Step 1.	Thick Oil
382		Example 5, Step 1.	White Foam
383		Example 5, Step 1.	White Solid
384		Example 5, Step 1.	White Foam

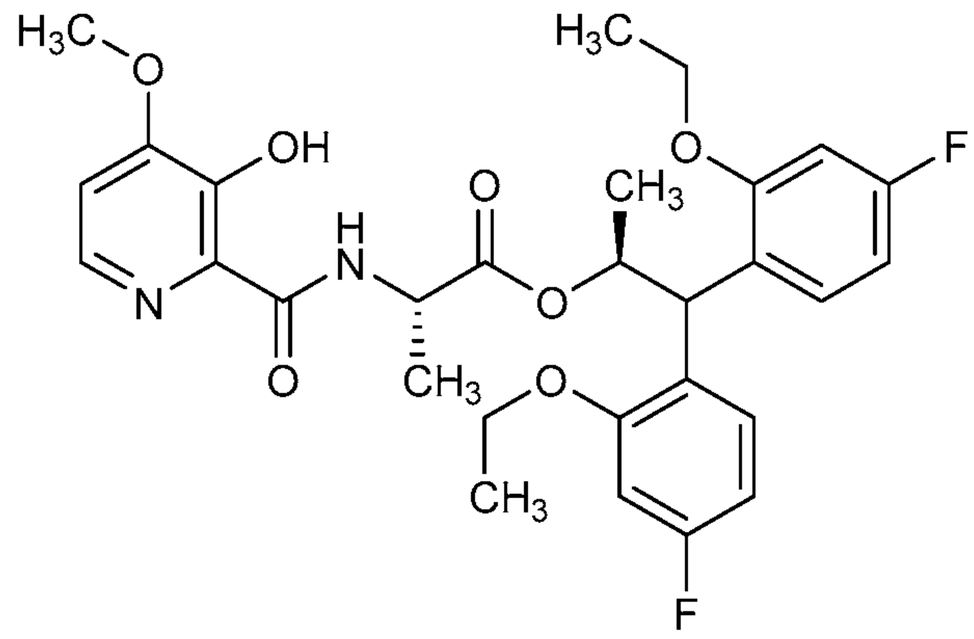
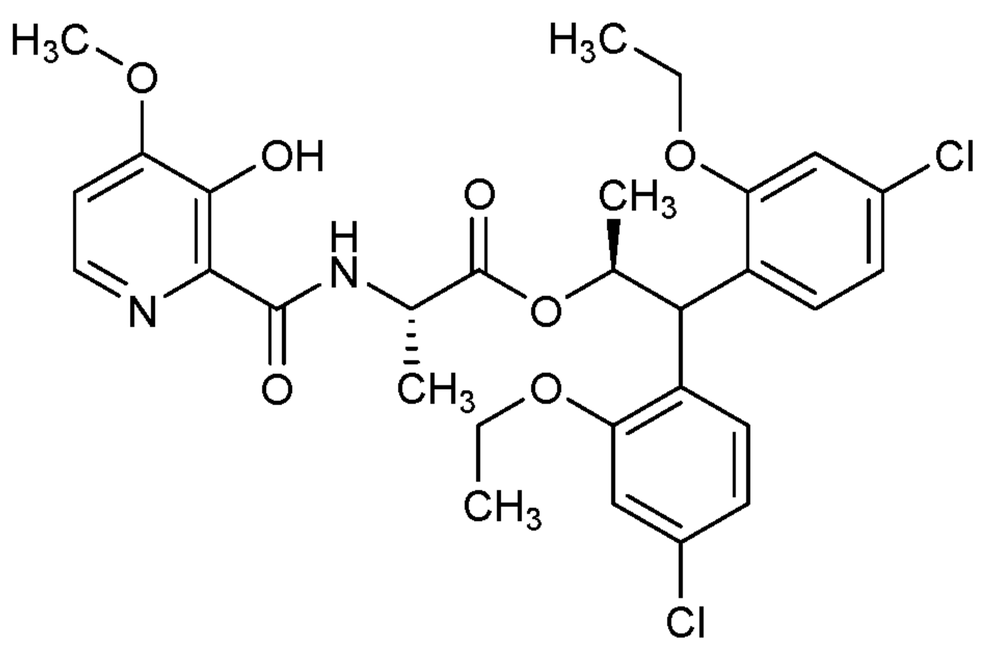
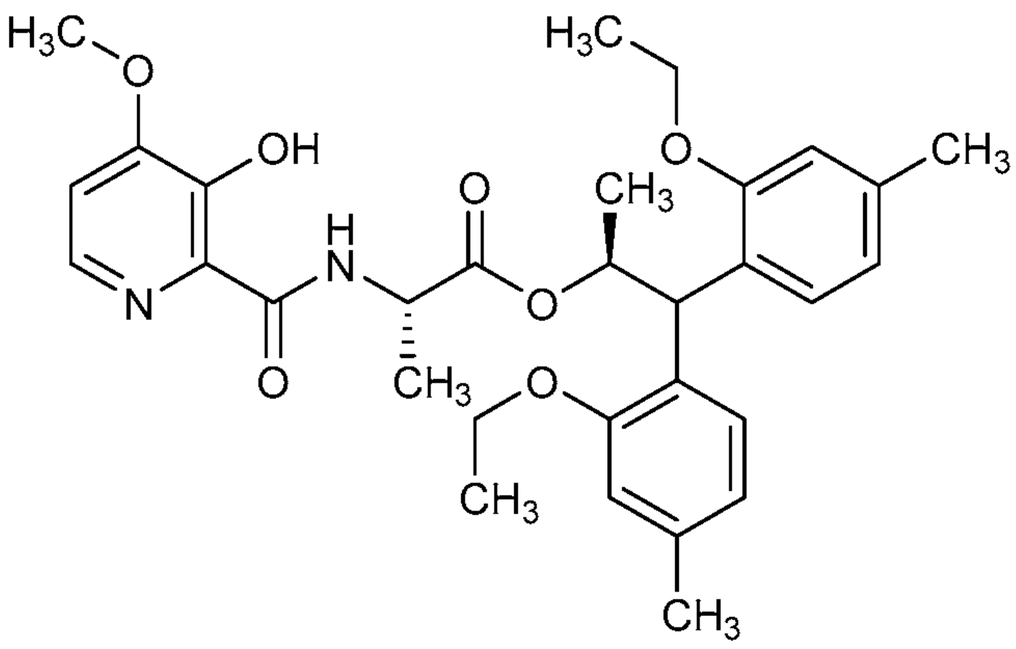
*Cmpd. No.	Structure	Prepared According To Example	Appearance
385		Example 5, Step 1.	White Foam
386		Example 5 Step 2.	Matte White Solid And Clear Oil
387		Example 5 Step 2.	Matte White Solid And Clear Oil

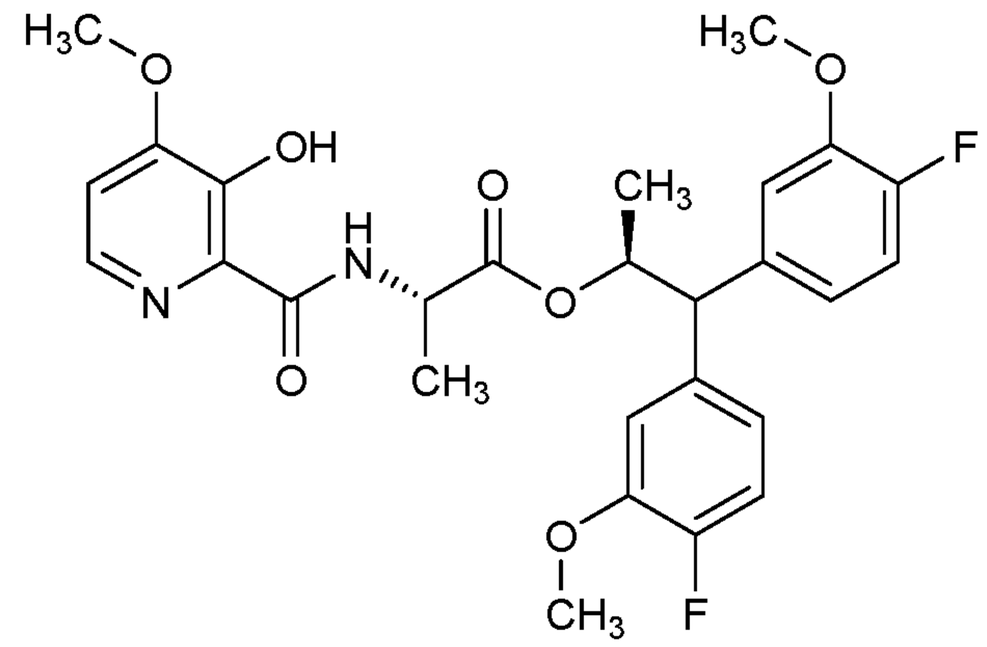
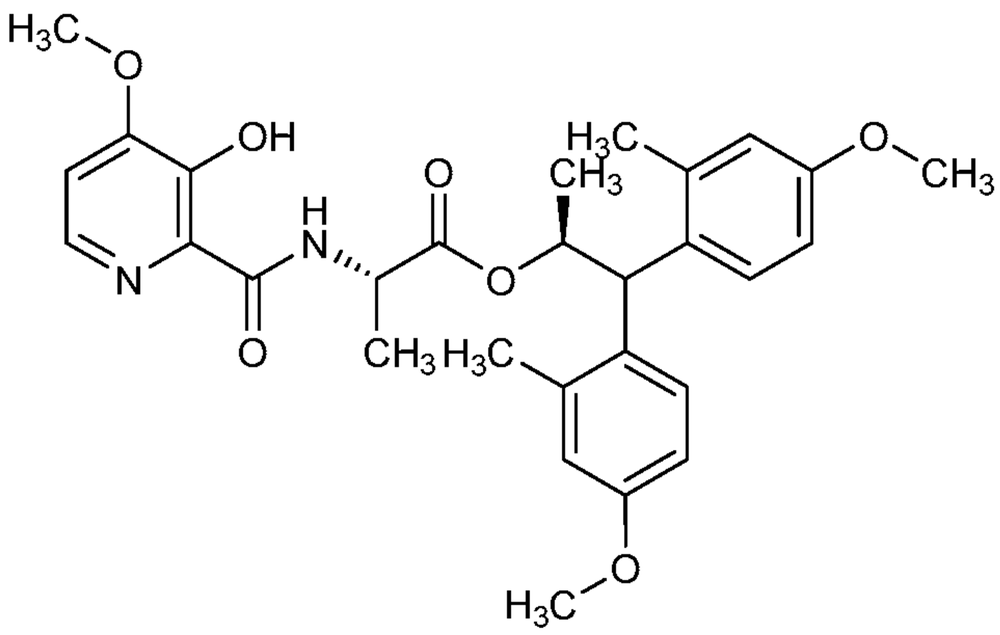
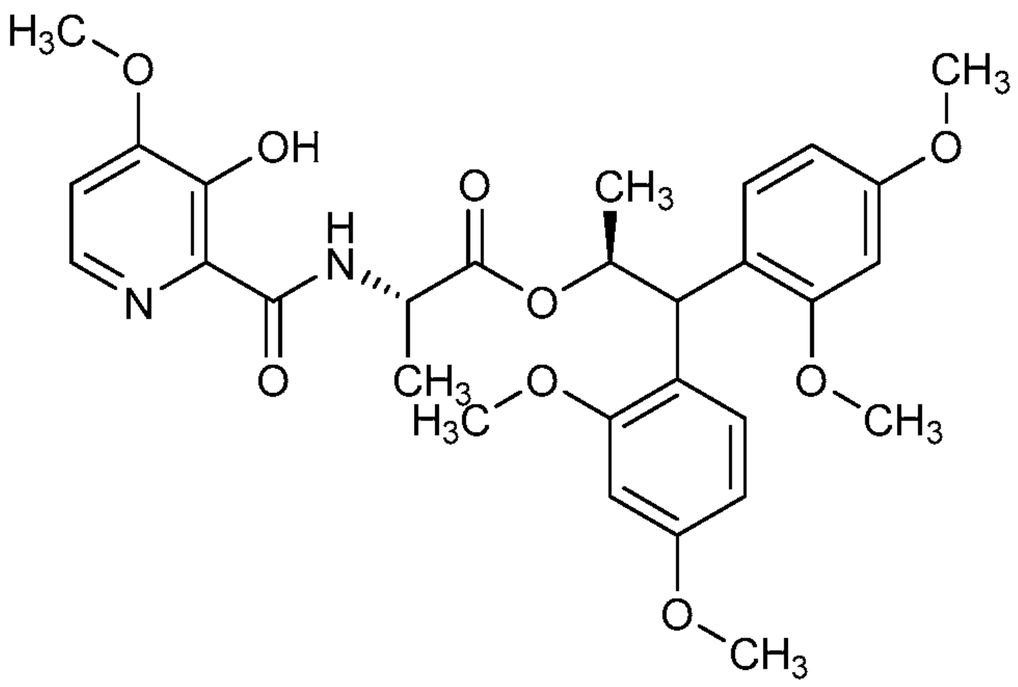
*Cmpd. No.	Structure	Prepared According To Example	Appearance
388		Example 5, Step 2.	Clear, Colorless Oil
389		Example 5, Step 2.	Colorless Foam
390		Example 5, Step 2.	Colorless Foam

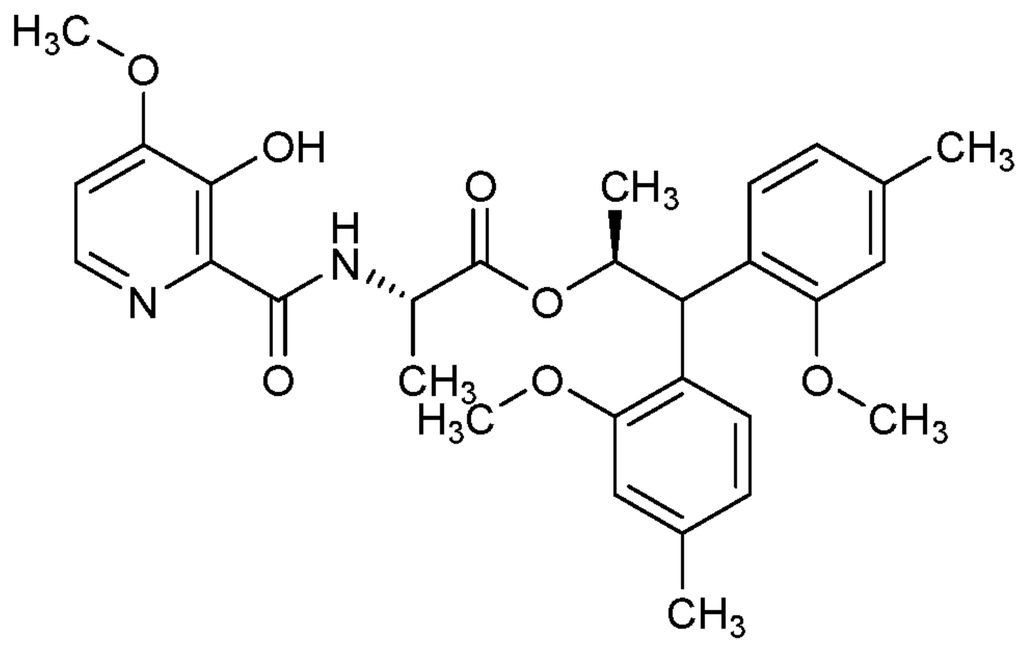
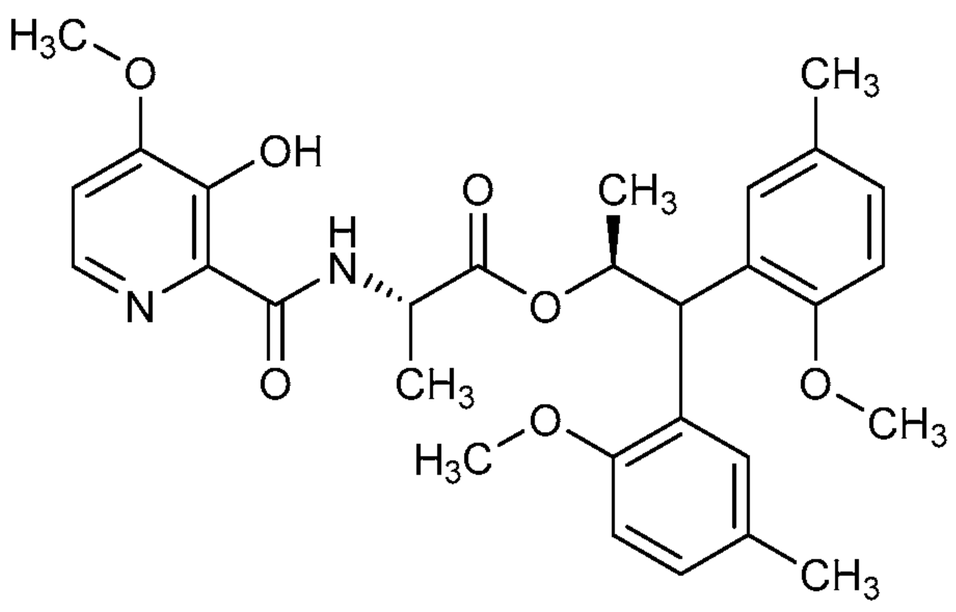
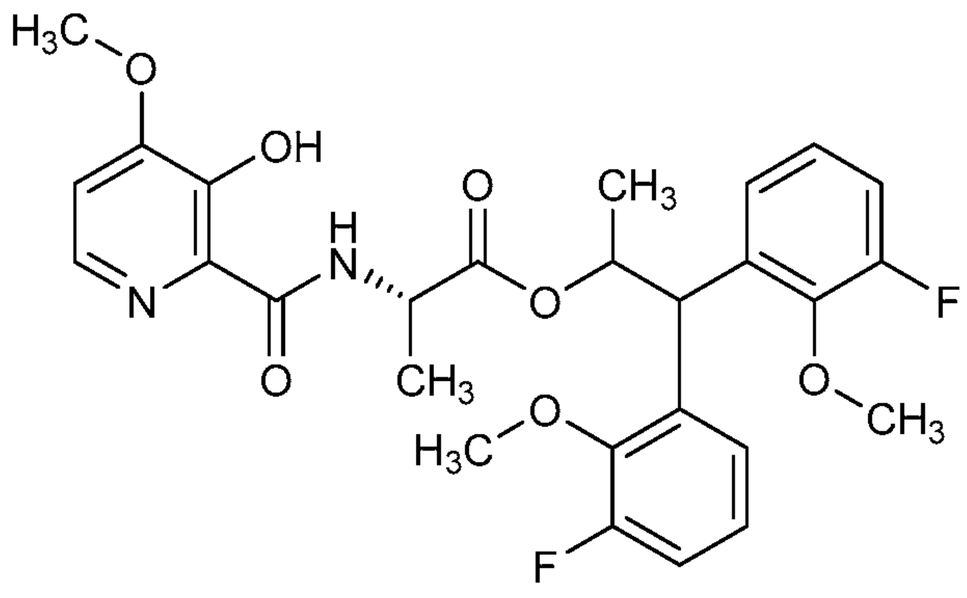
*Cmpd. No.	Structure	Prepared According To Example	Appearance
391		Example 5, Step 2.	Clear, Colorless Oil
392		Example 5, Step 2.	Semi Solid
393		Example 5, Step 2.	White Foam

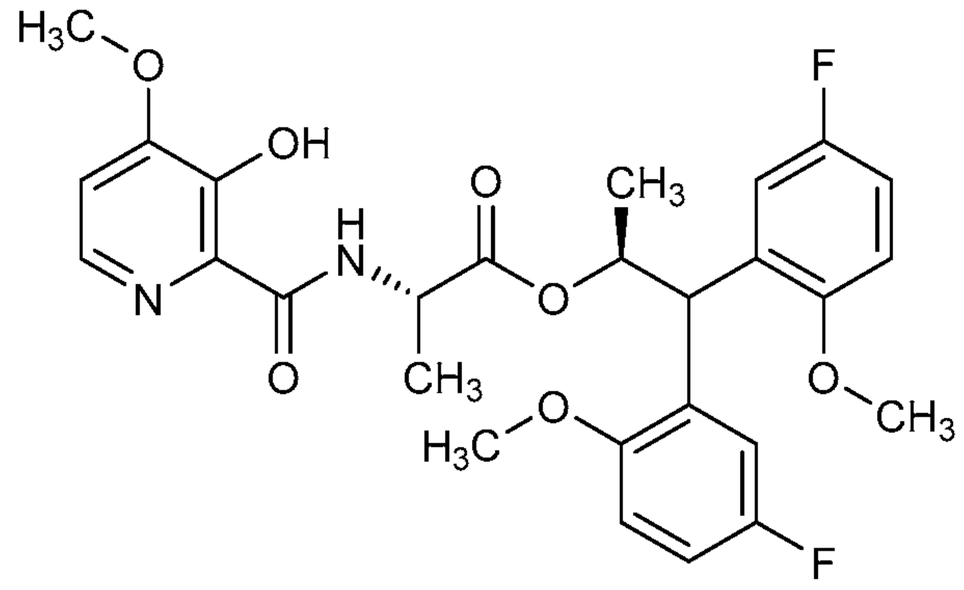
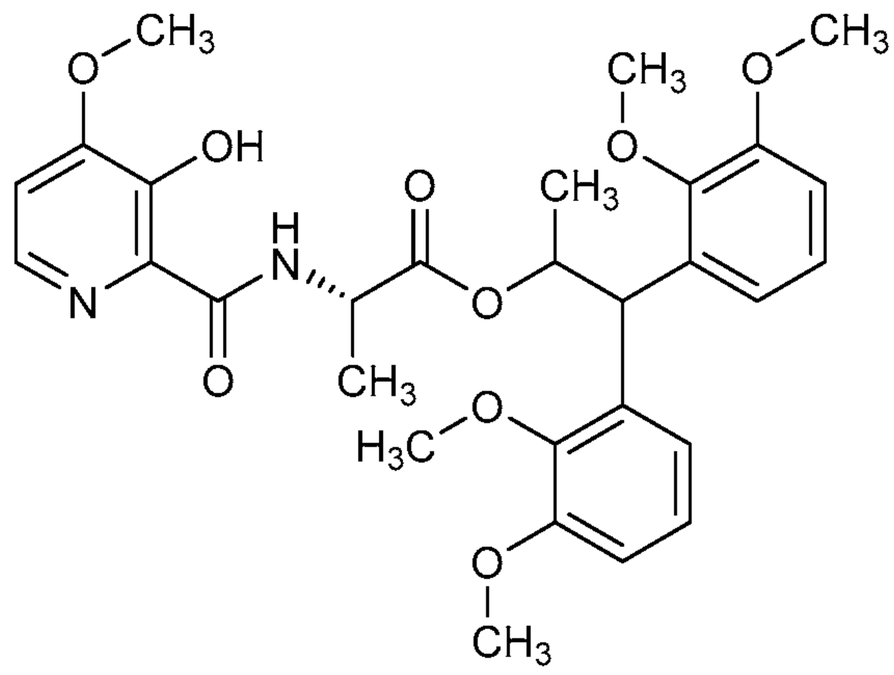
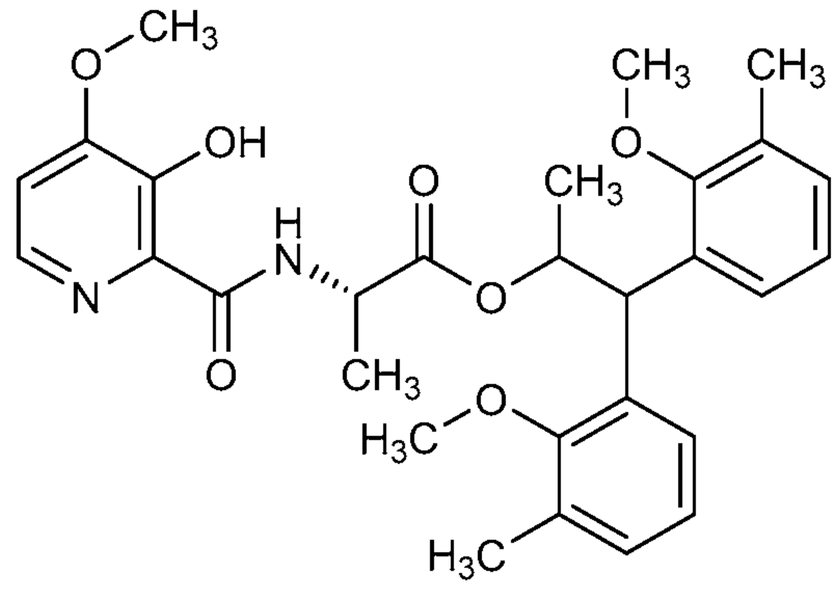
*Cmpd. No.	Structure	Prepared According To Example	Appearance
394		Example 5 Step 2.	Colorless Foamy Oil
395		Example 5, Step 2.	White Foam
396		Example 5, Step 2	White Foam

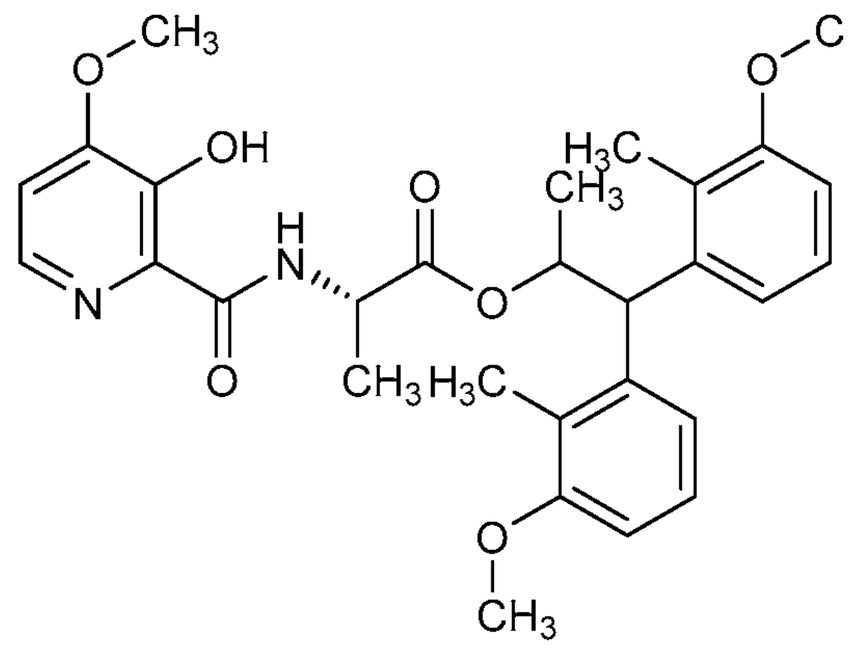
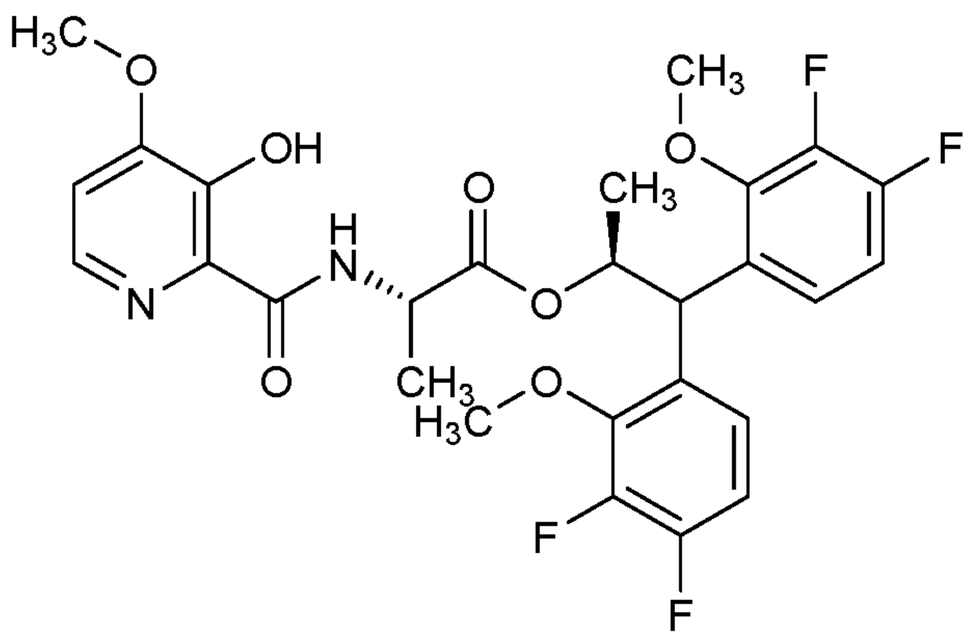
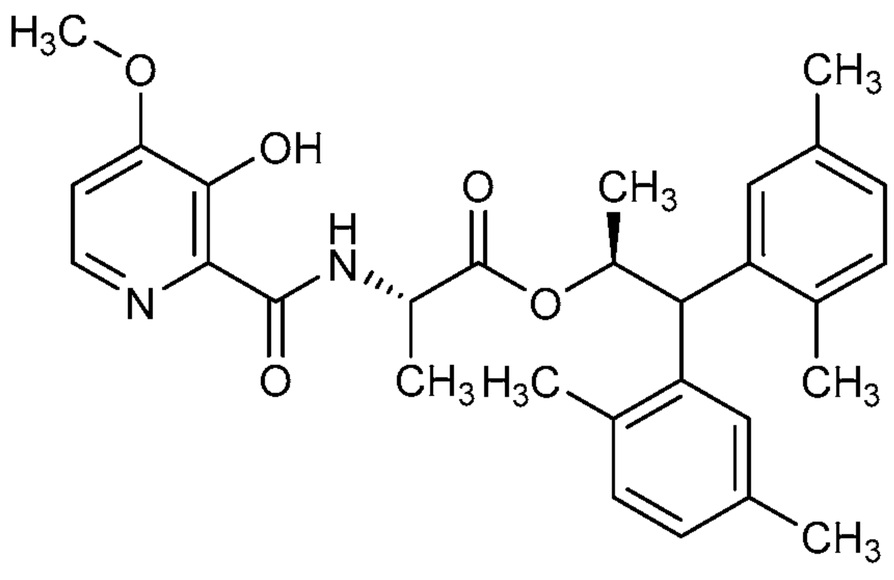
*Cmpd. No.	Structure	Prepared According To Example	Appearance
397		Example 5, Step 2	White Foam
398		Example 5, Step 2	White Foam
399		Example 5, Step 2.	White Foam

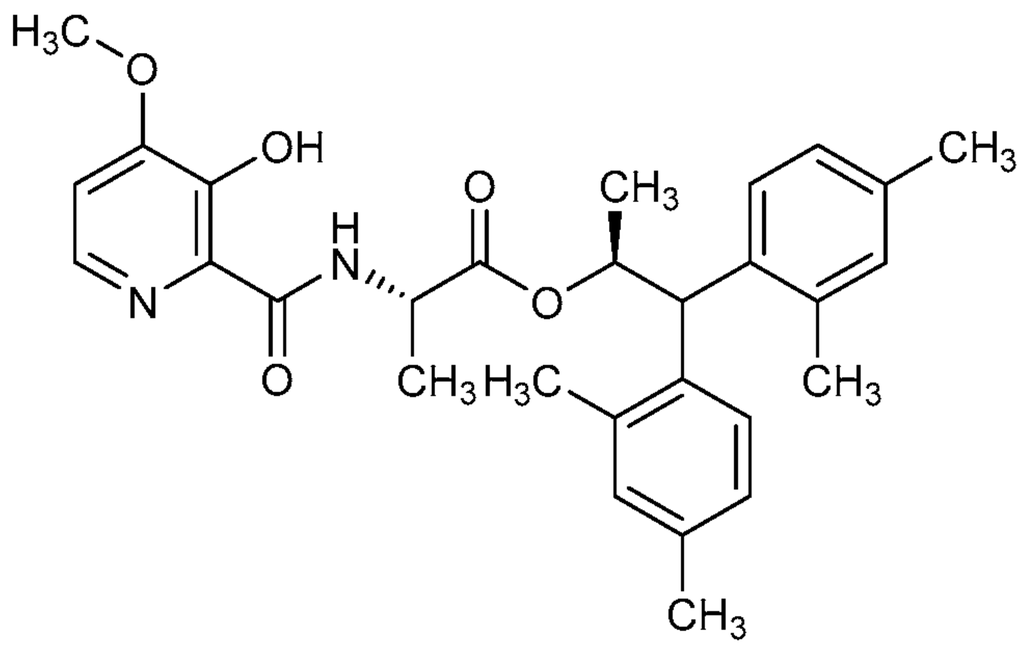
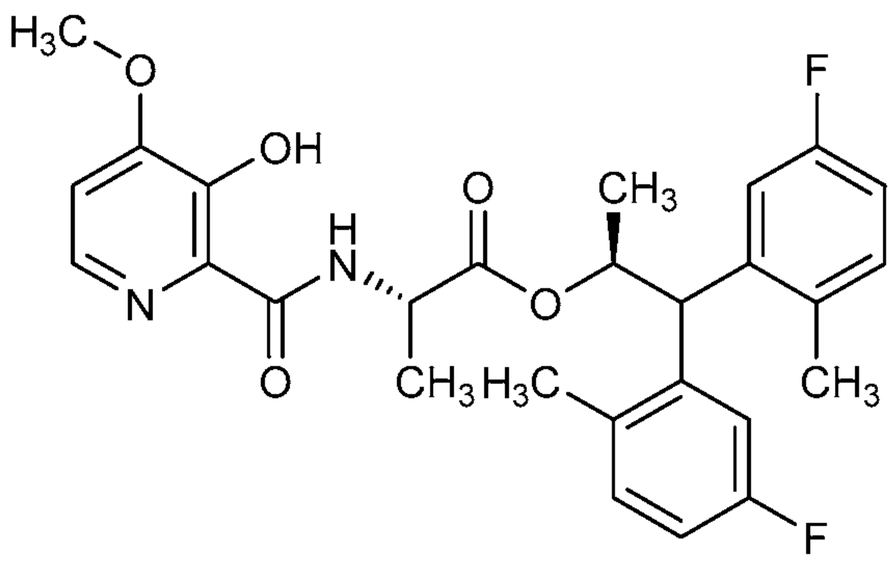
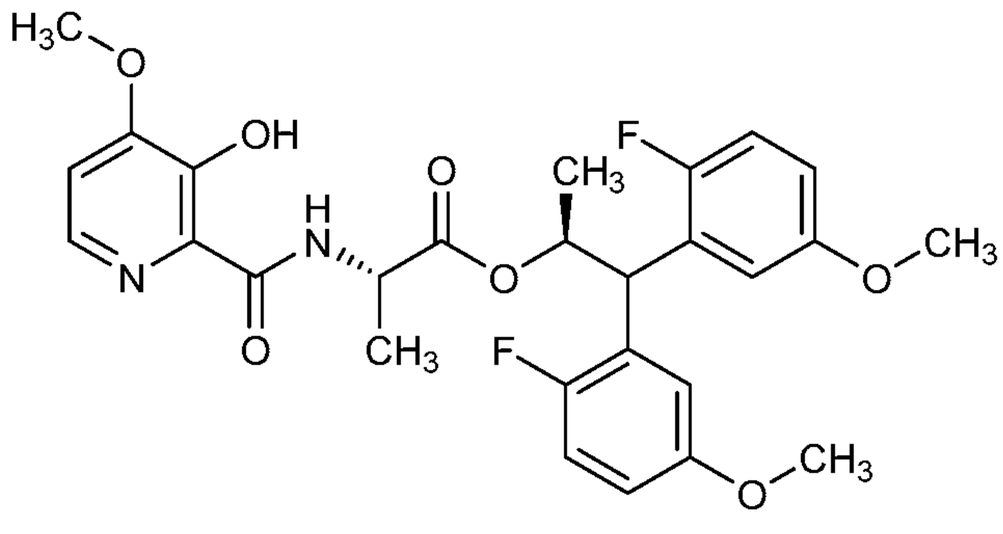
*Cmpd. No.	Structure	Prepared According To Example	Appearance
400		Example 5, Step 2.	White Foam
401		Example 5, Step 2.	White Foam
402		Example 5, Step 2.	White Foam

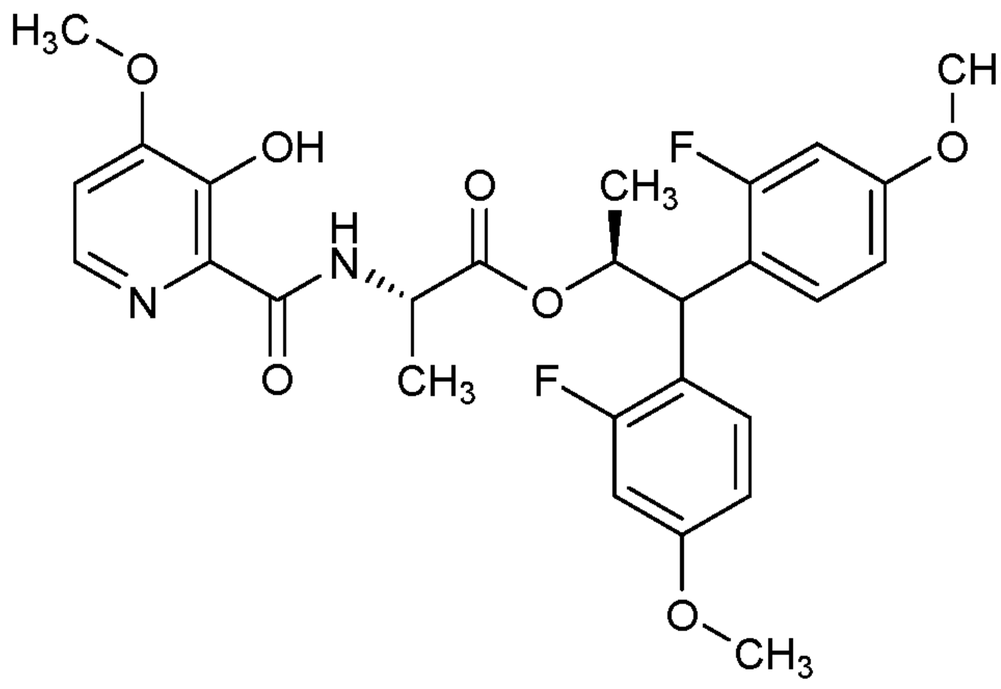
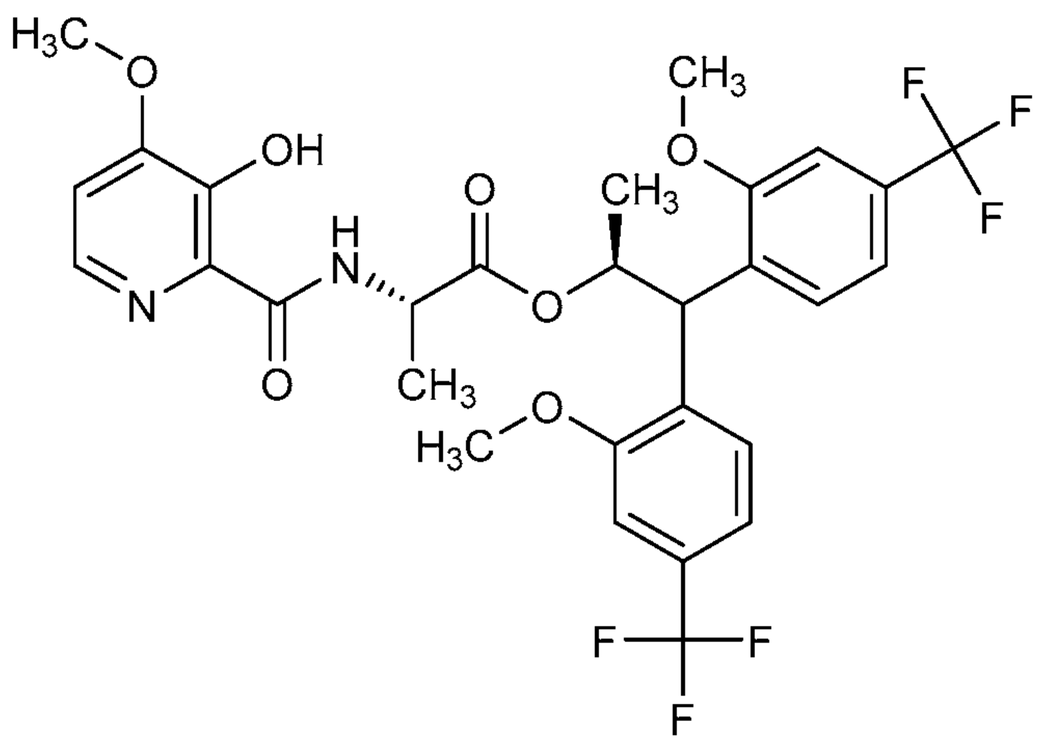
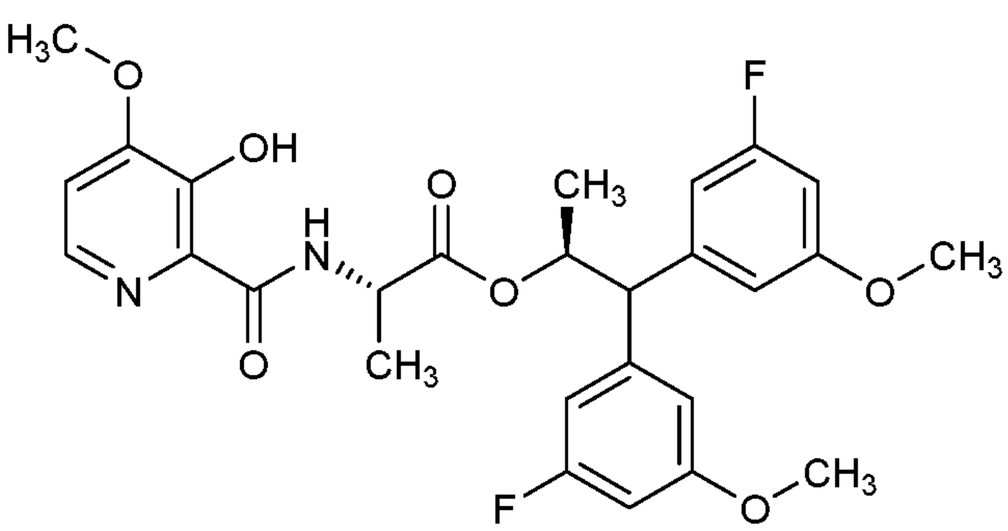
*Cmpd. No.	Structure	Prepared According To Example	Appearance
403		Example 5, Step 2	Colorless Oil
404		Example 5, Step 2	Colorless Oil
405		Example 5, Step 2	White Foam

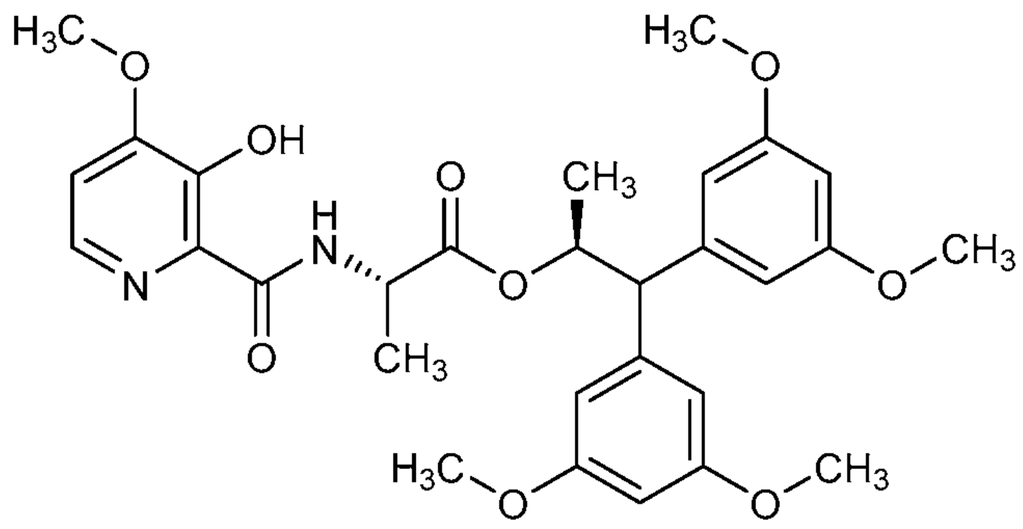
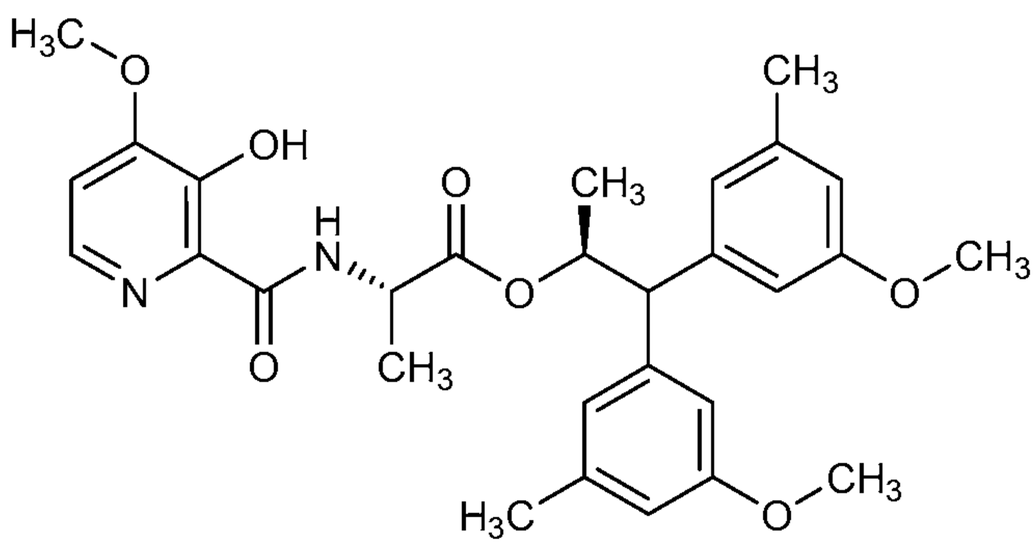
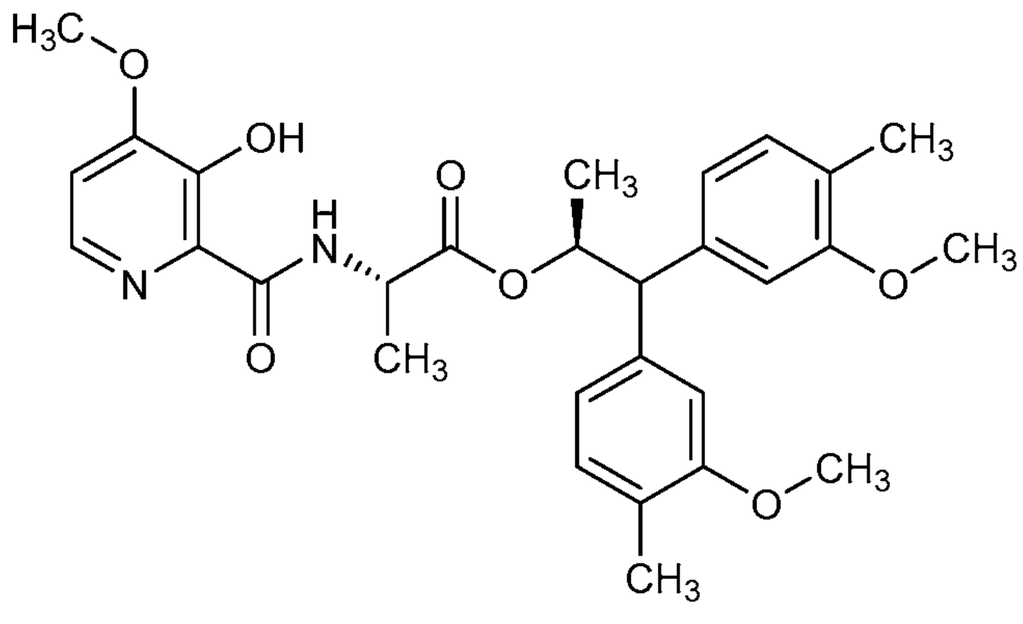
*Cmpd. No.	Structure	Prepared According To Example	Appearance
406		Example 5, Step 2	White Foam
407		Example 5, Step 2	White Foam
408		Example 5, Step 2	White Foam

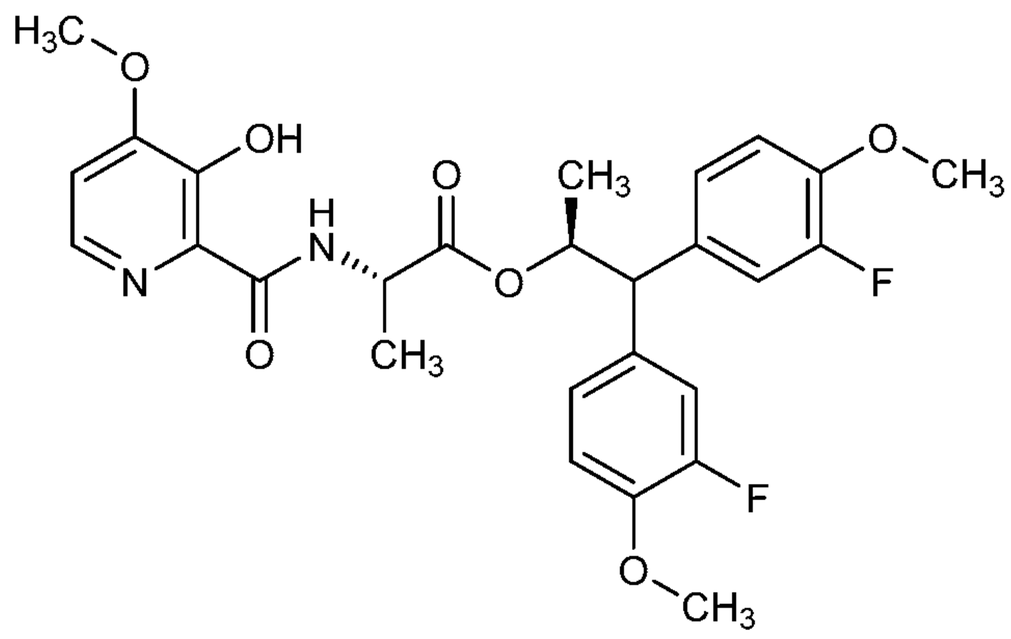
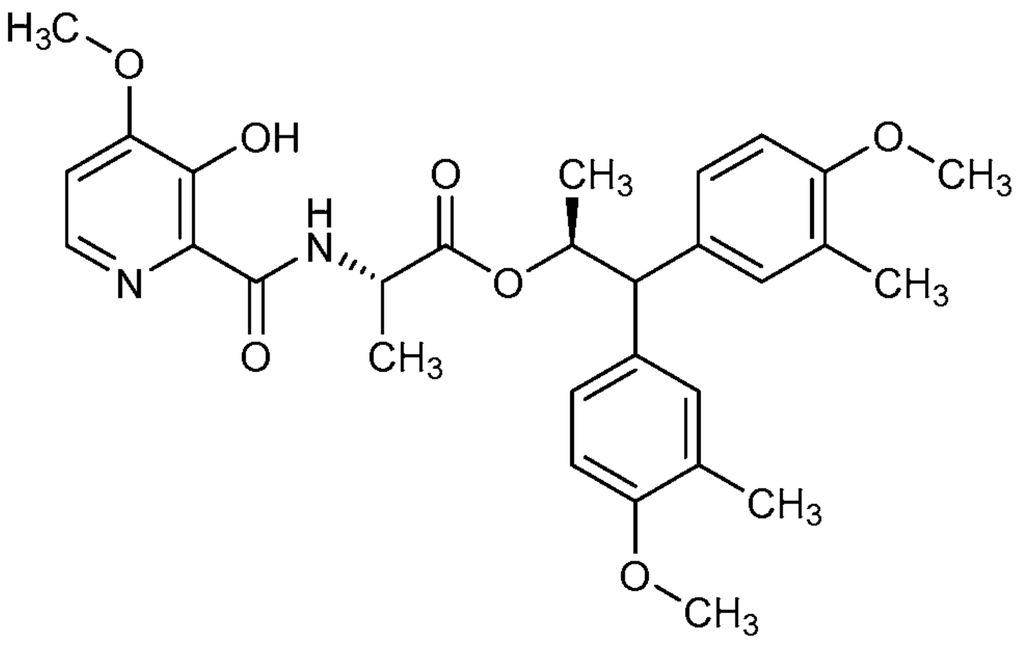
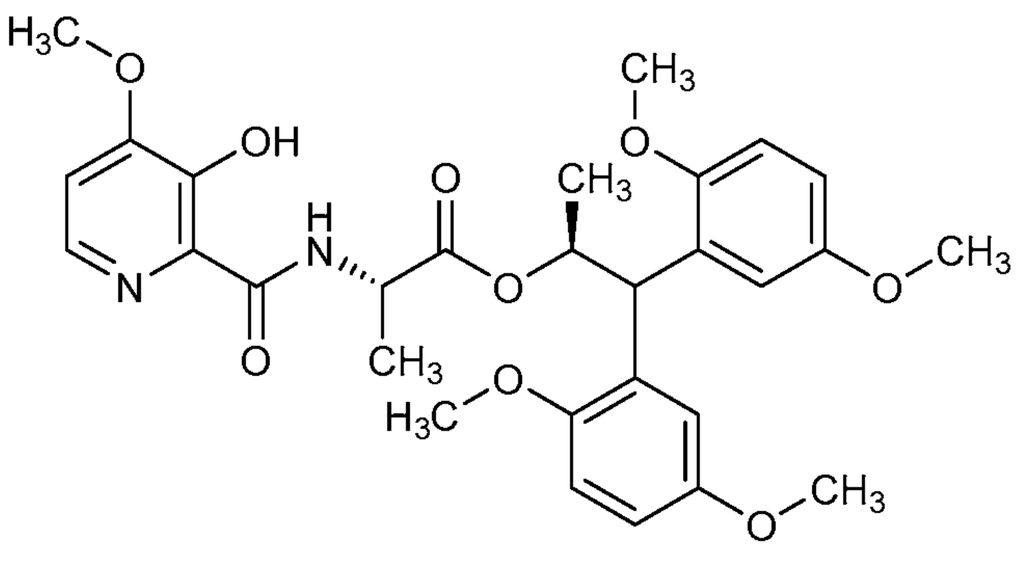
*Cmpd. No.	Structure	Prepared According To Example	Appearance
409		Example 5, Step 2	White Foam
410		Example 5, Step 2	White Foam
411		Example 5, Step 2	White Foam

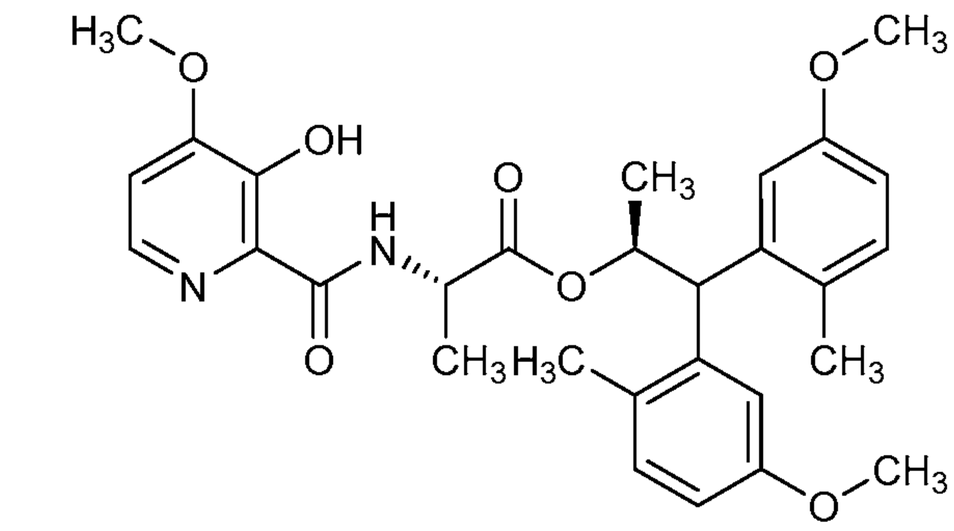
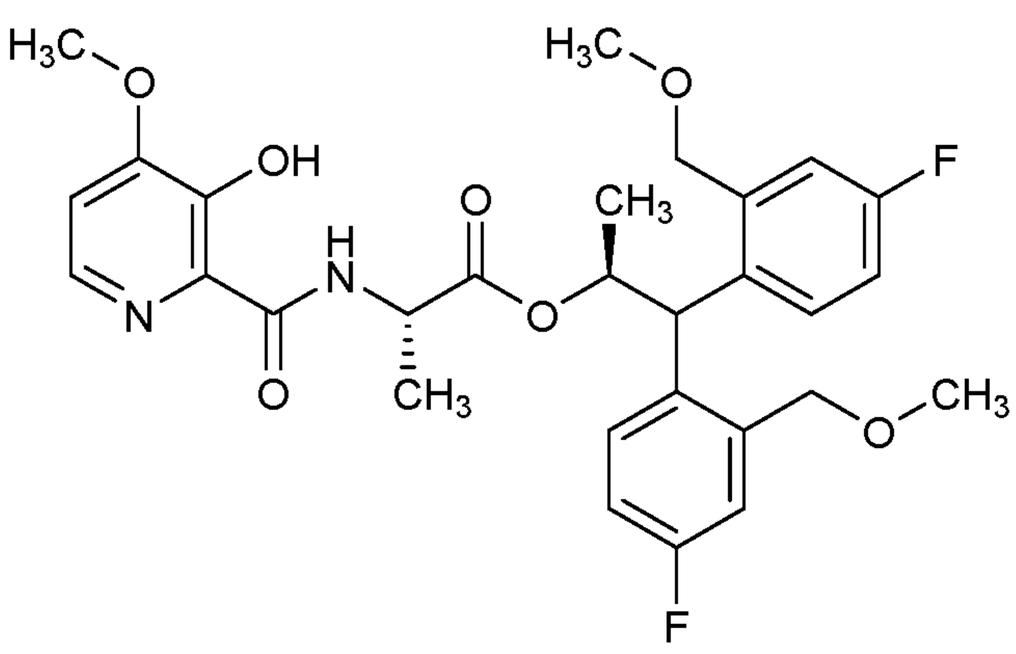
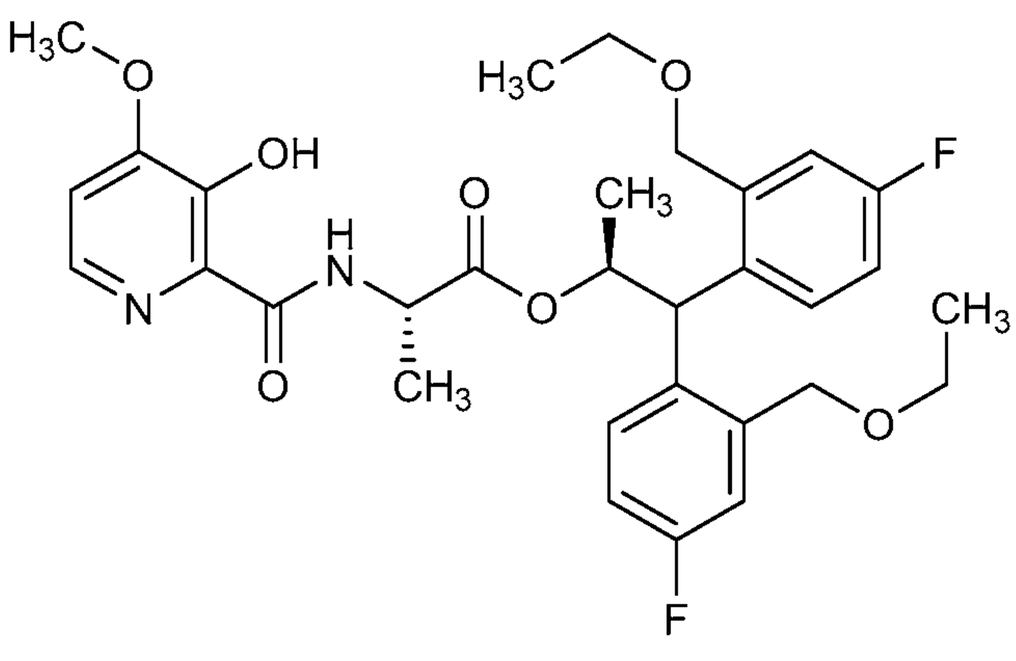
*Cmpd. No.	Structure	Prepared According To Example	Appearance
412		Example 5, Step 2	Oil
413		Example 5, Step 2.	White Foam
414		Example 5, Step 2.	Thick Oil

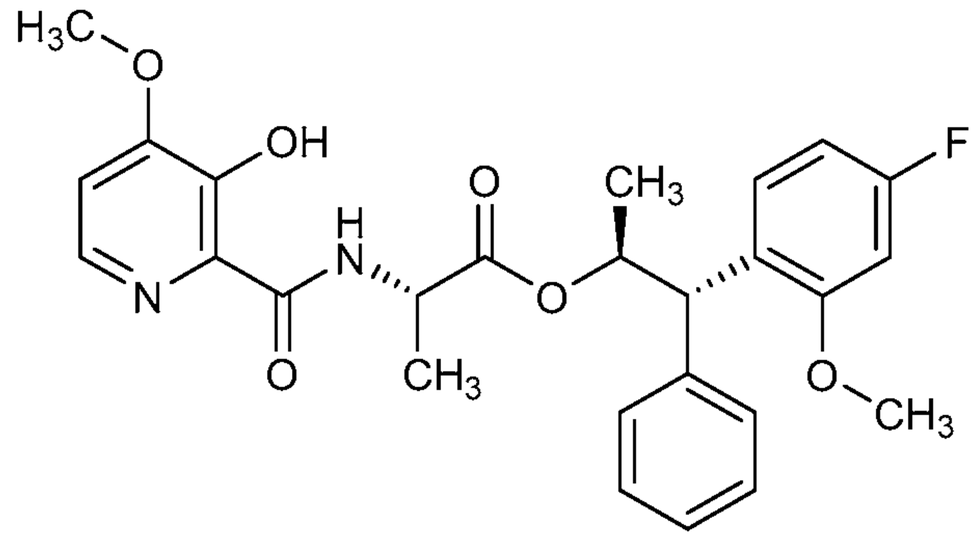
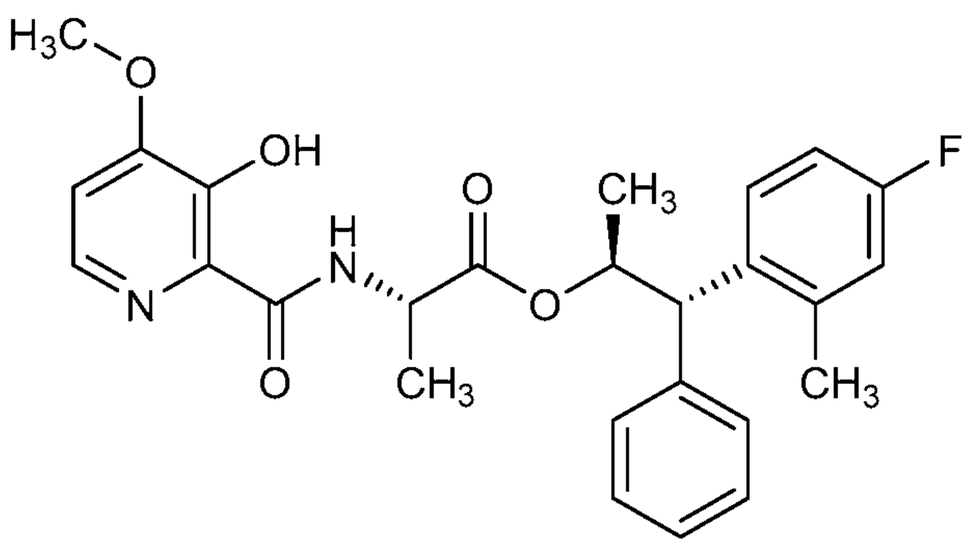
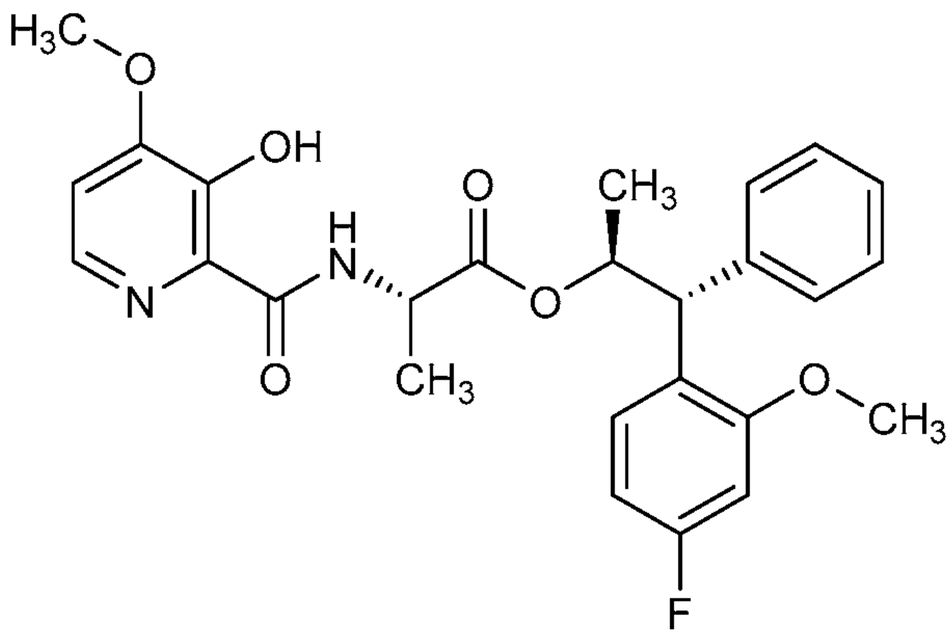
*Cmpd. No.	Structure	Prepared According To Example	Appearance
415		Example 5, Step 2.	White Foam
416		Example 5, Step 2.	White Foam
417		Example 5, Step 2.	White Foam

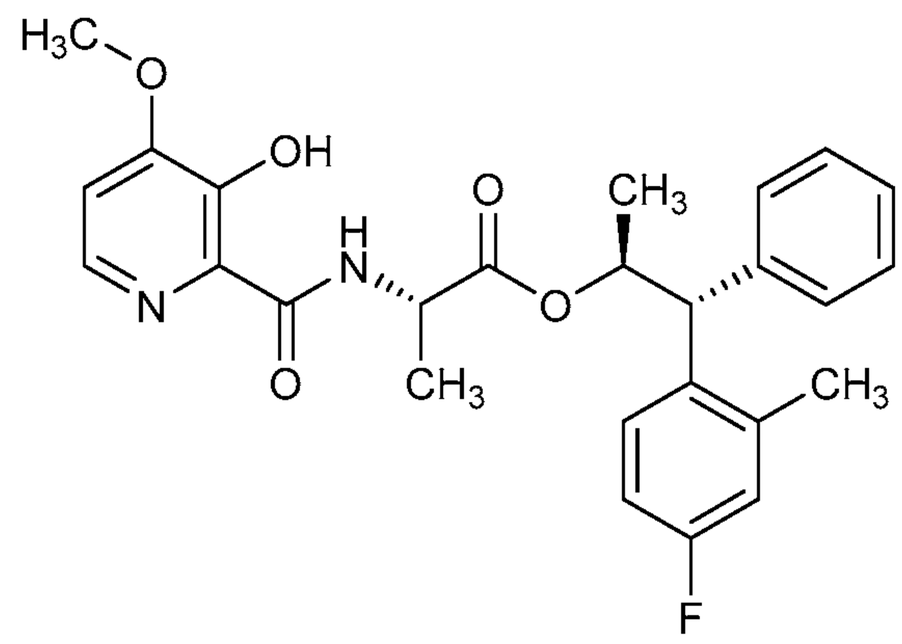
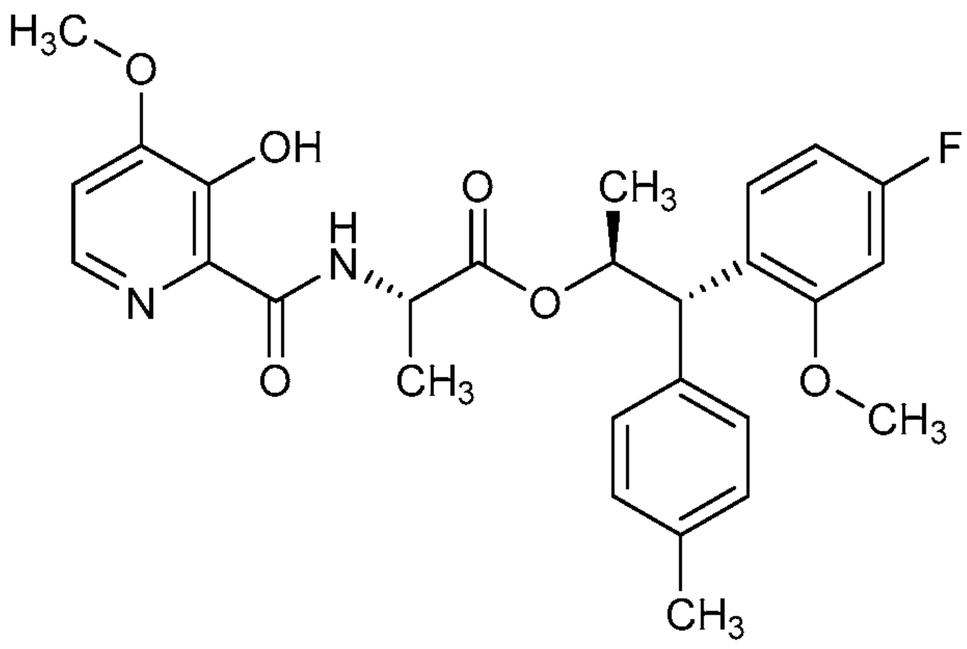
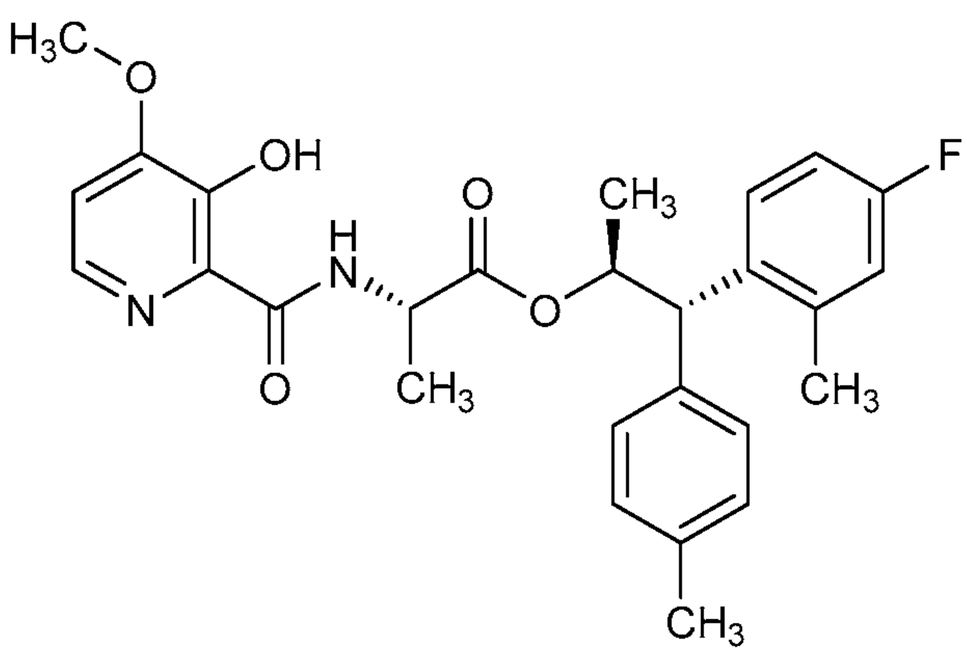
*Cmpd. No.	Structure	Prepared According To Example	Appearance
418		Example 5, Step 2.	White Foam
419		Example 5, Step 2.	White Foam
420		Example 5, Step 2.	Colorless Foam

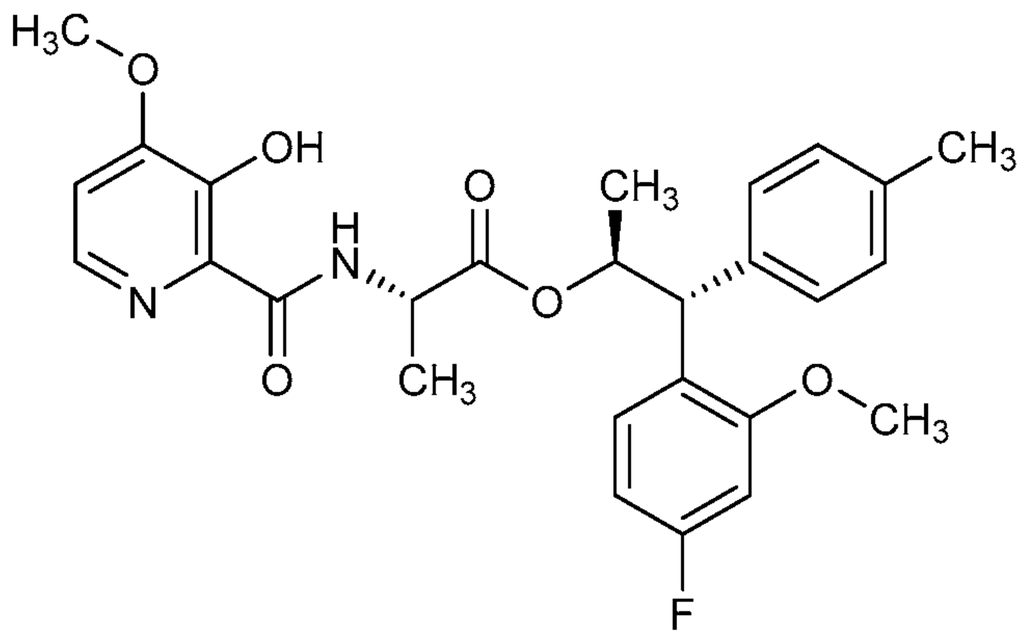
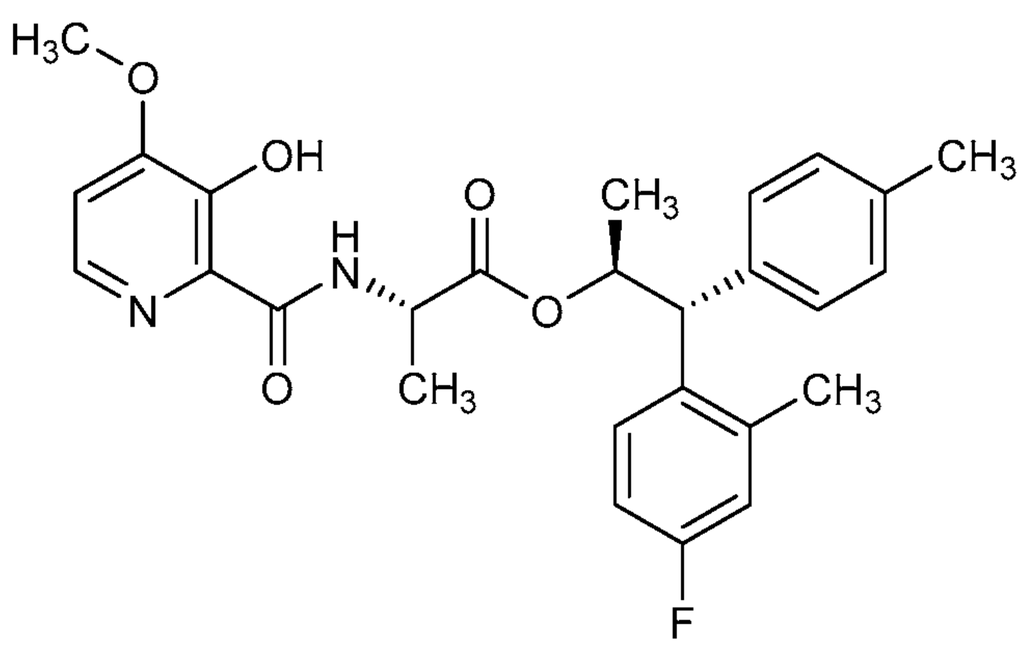
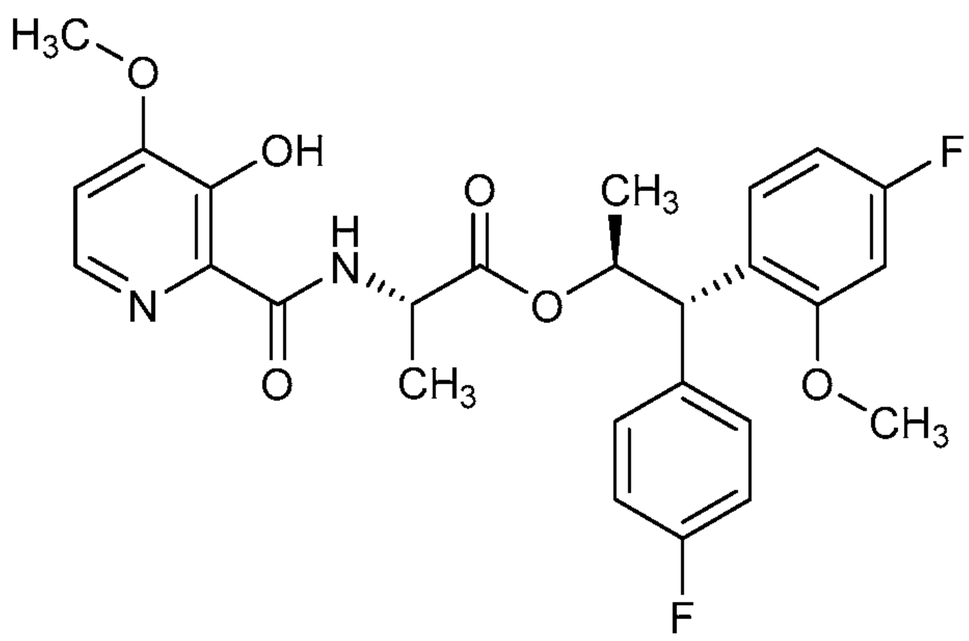
*Cmpd. No.	Structure	Prepared According To Example	Appearance
421		Example 5, Step 2.	Clear, Colorless Oil
422		Example 5, Step 2.	Clear, Colorless Oil
423		Example 5, Step 2.	Colorless Foam

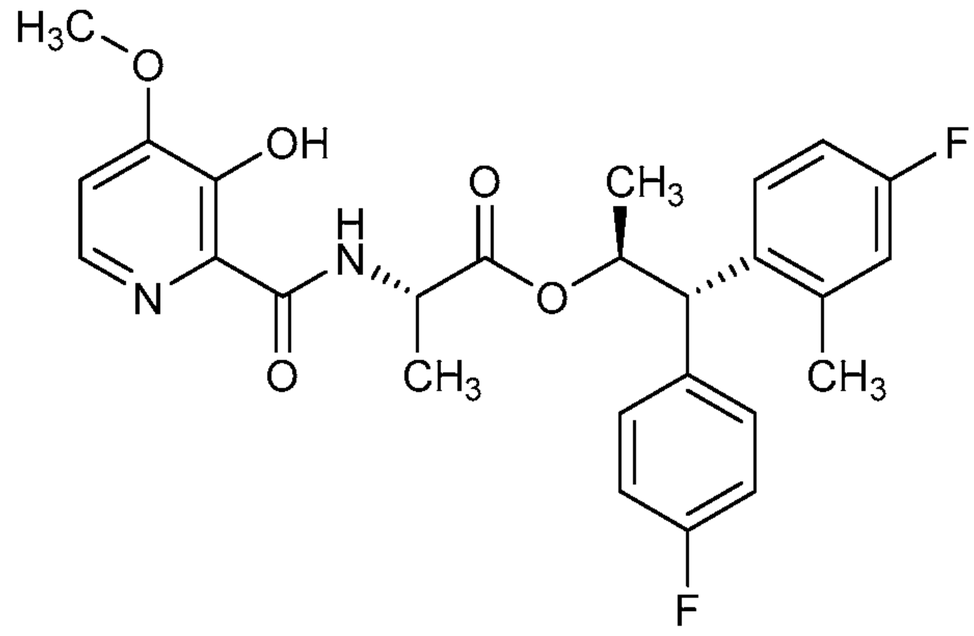
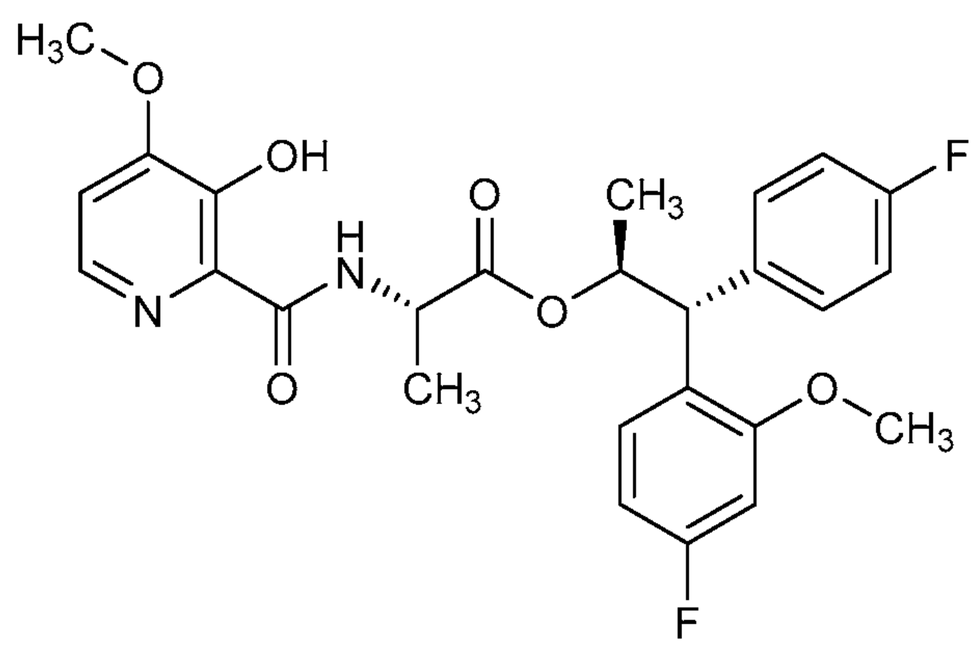
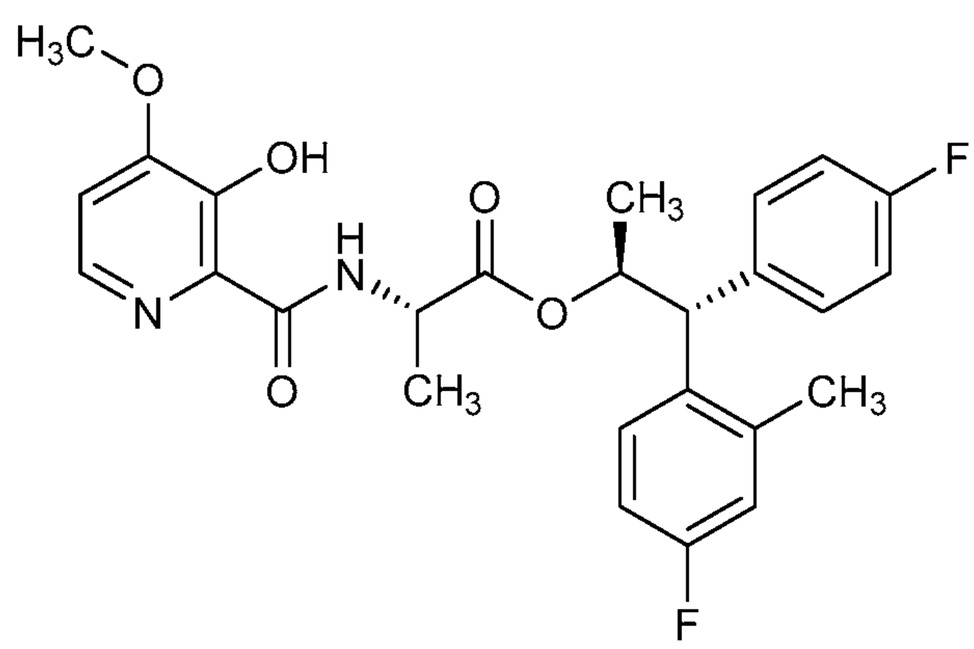
*Cmpd. No.	Structure	Prepared According To Example	Appearance
424		Example 5, Step 2.	Colorless Foam
425		Example 5, Step 2.	Clear, Colorless Oil
426		Example 5, Step 2.	Clear, Colorless Oil

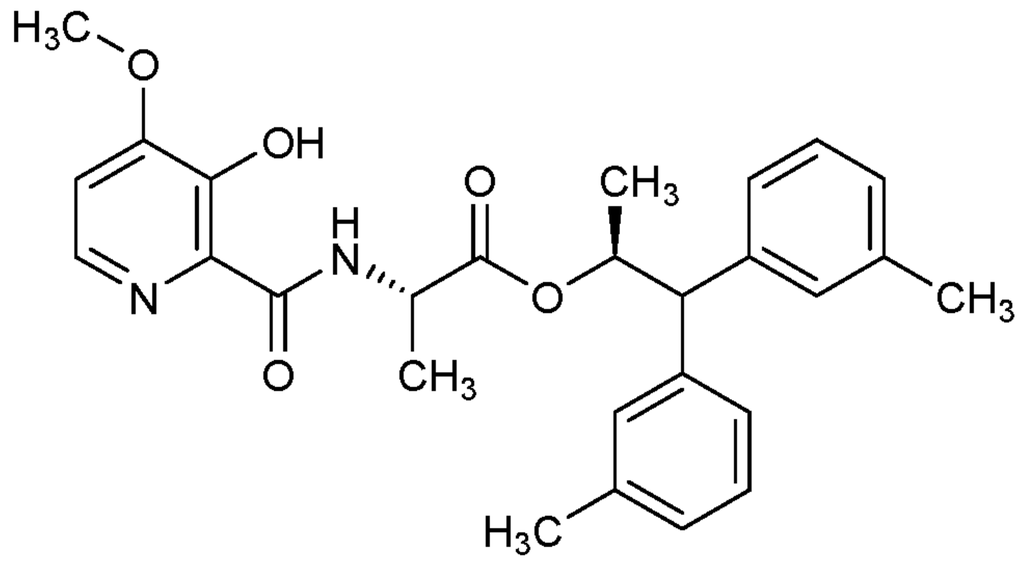
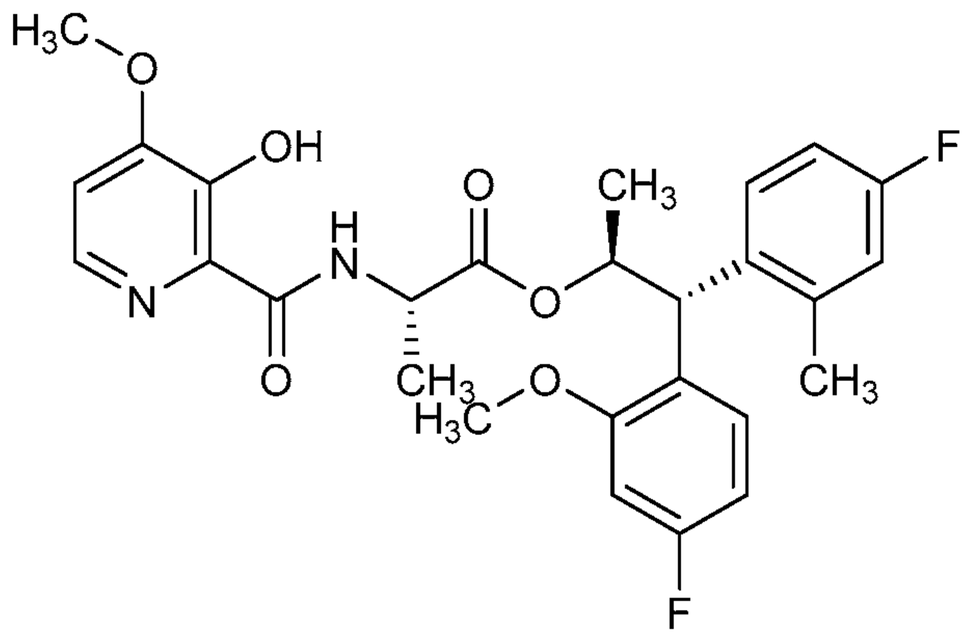
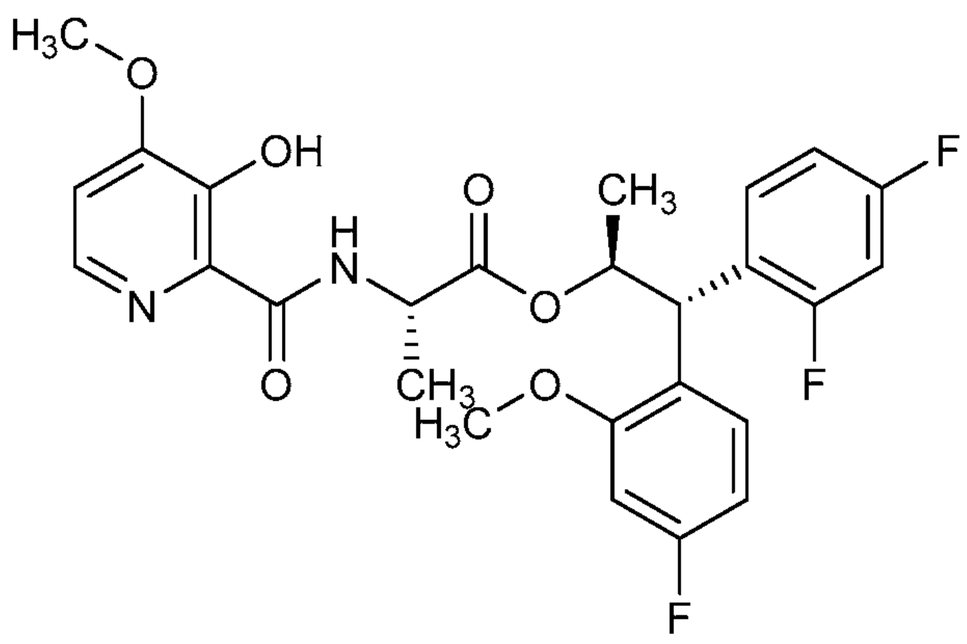
*Cmpd. No.	Structure	Prepared According To Example	Appearance
427		Example 5, Step 2.	Clear, Colorless Oil
428		Example 5, Step 2.	White Foam
429		Example 5, Step 2.	Sticky Wax

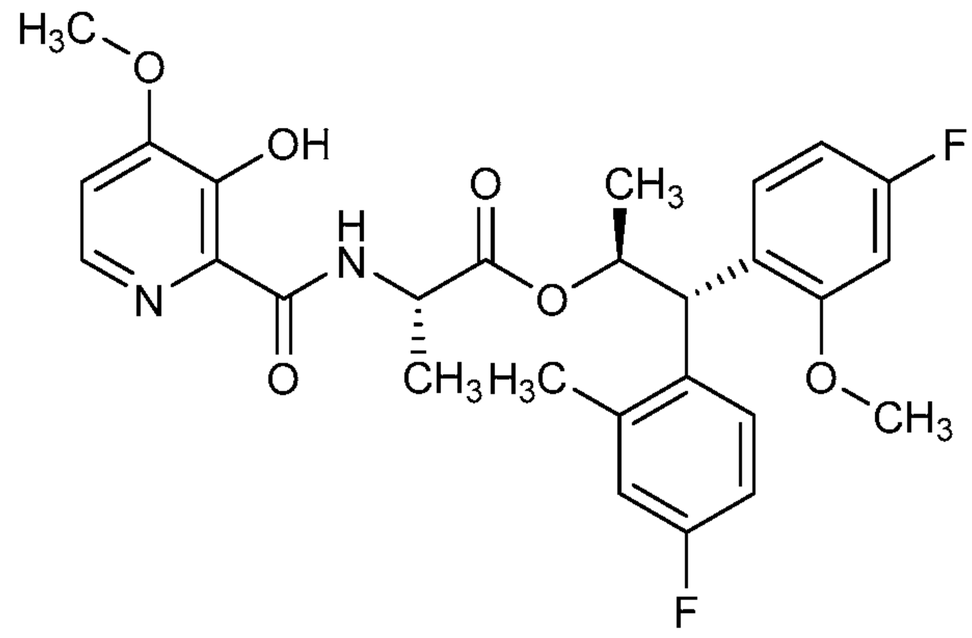
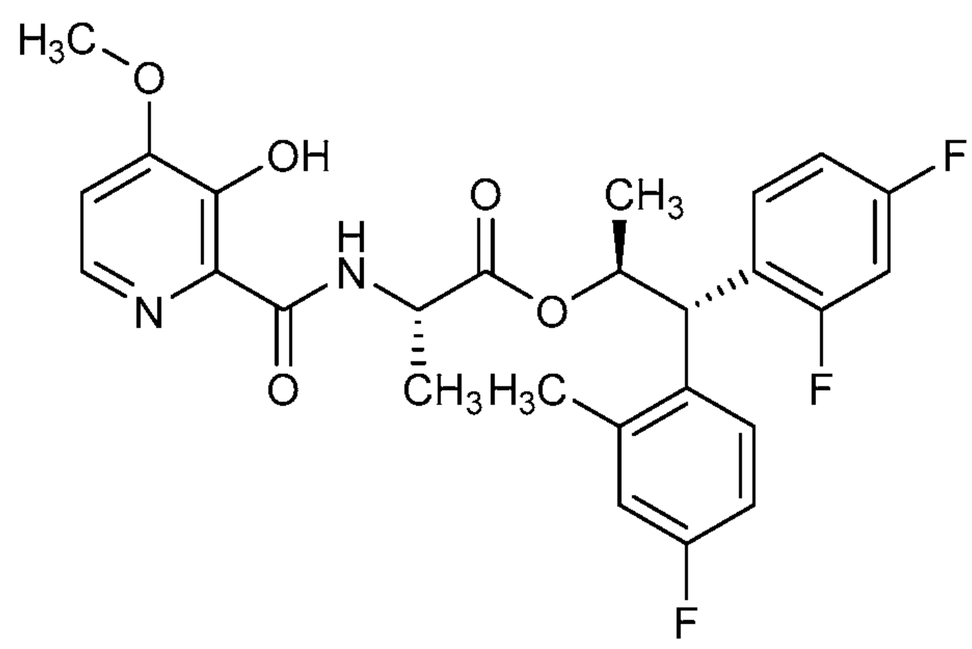
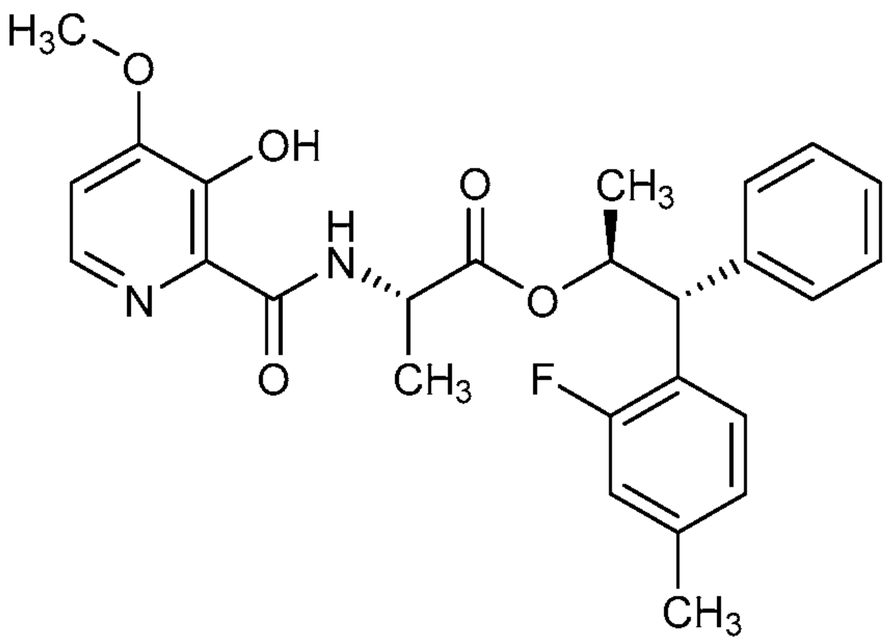
*Cmpd. No.	Structure	Prepared According To Example	Appearance
430		Example 5, Step 2	Colorless Gel
431		Example 5, Step 2	Colorless Gel
432		Example 5, Step 2	Colorless Gel

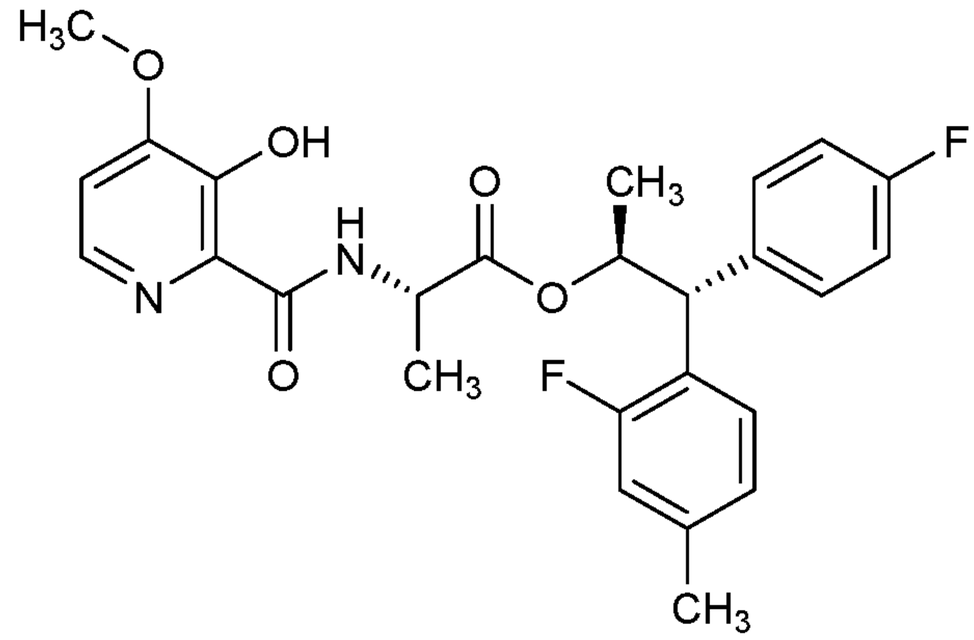
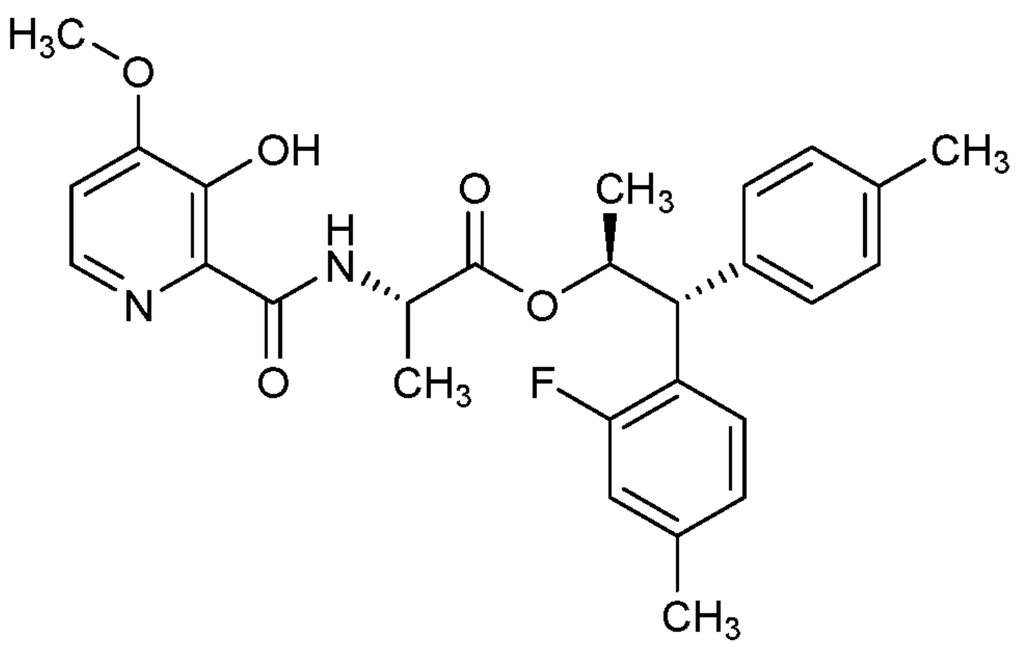
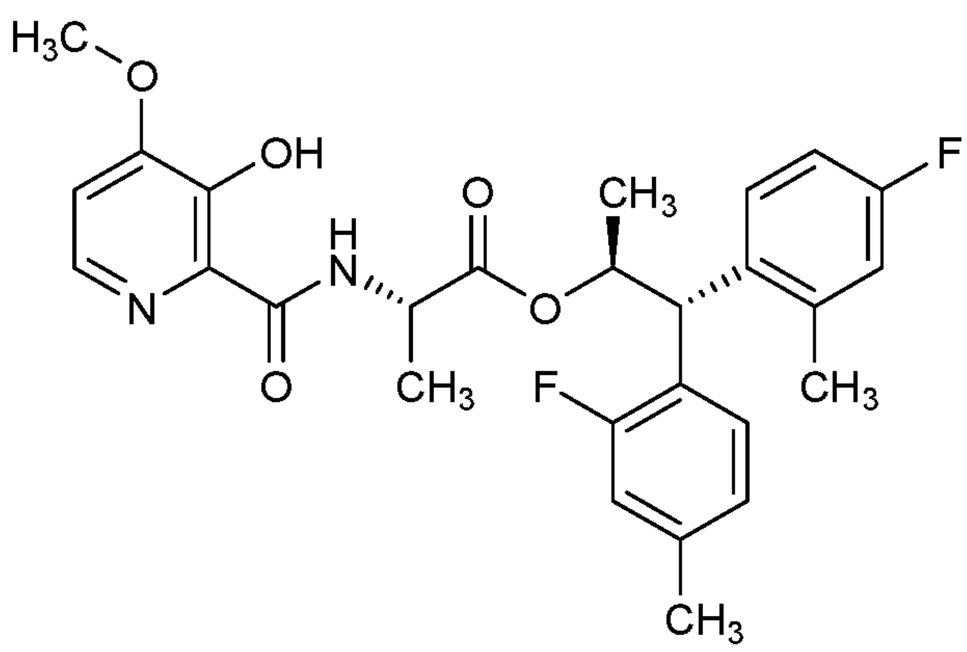
*Cmpd. No.	Structure	Prepared According To Example	Appearance
433		Example 5, Step 2	Colorless Gel
434		Example 5, Step 2	Colorless Oil
435		Example 5, Step 2	Colorless Oil

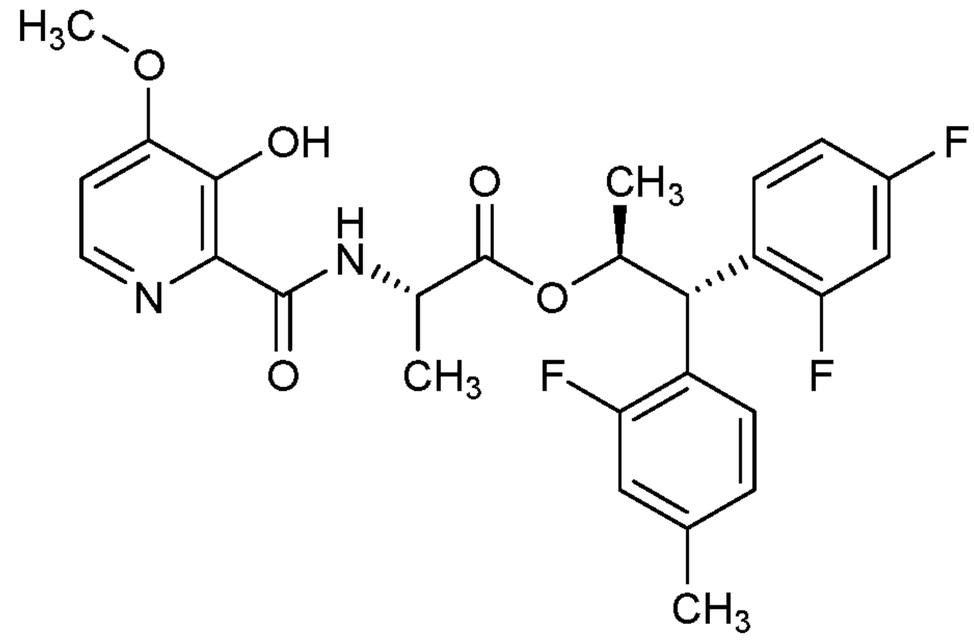
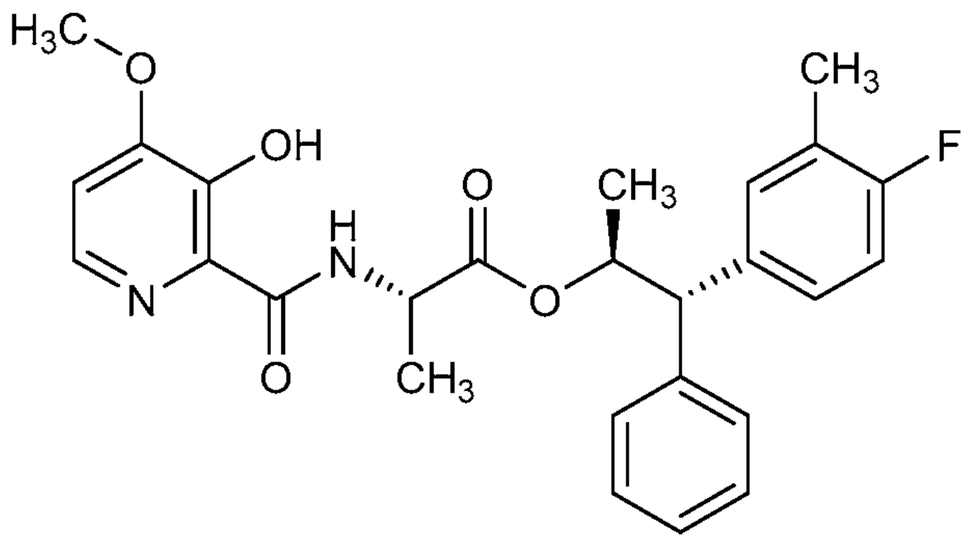
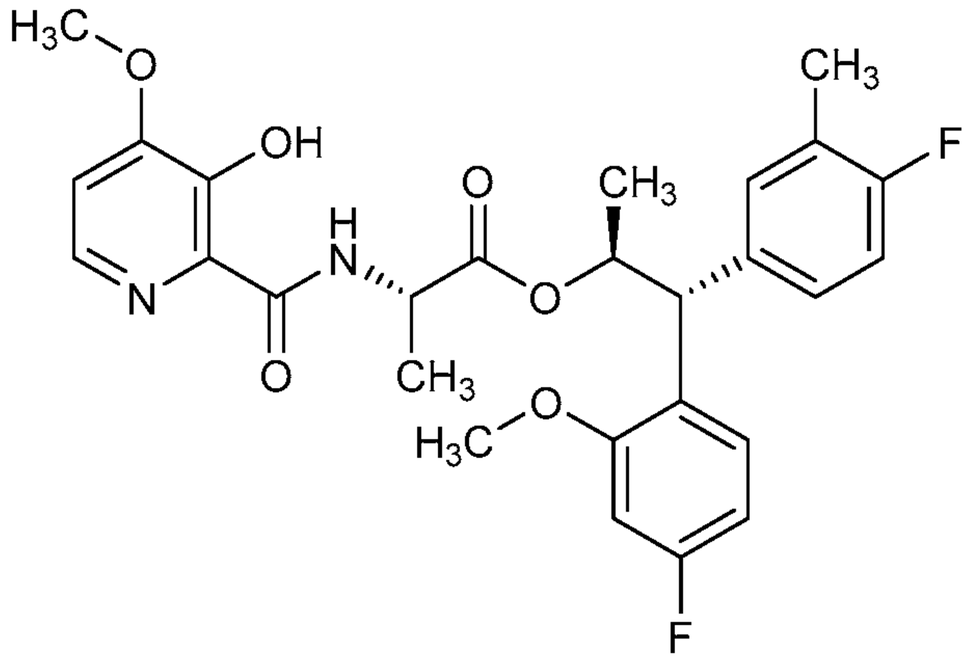
*Cmpd. No.	Structure	Prepared According To Example	Appearance
436		Example 5, Step 2	Colorless Oil
437		Example 5, Step 2	Colorless Oil
438		Example 5, Step 2	Colorless Foam

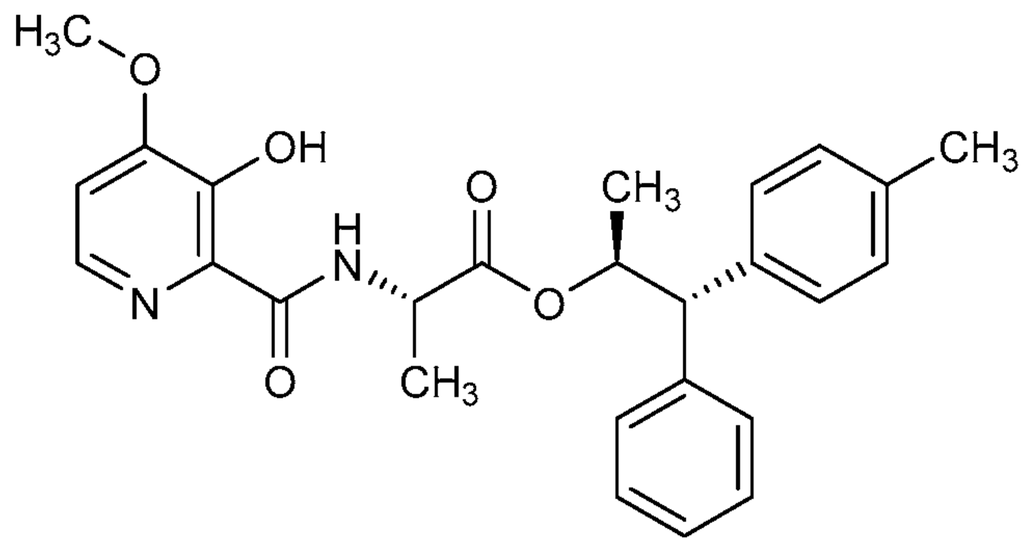
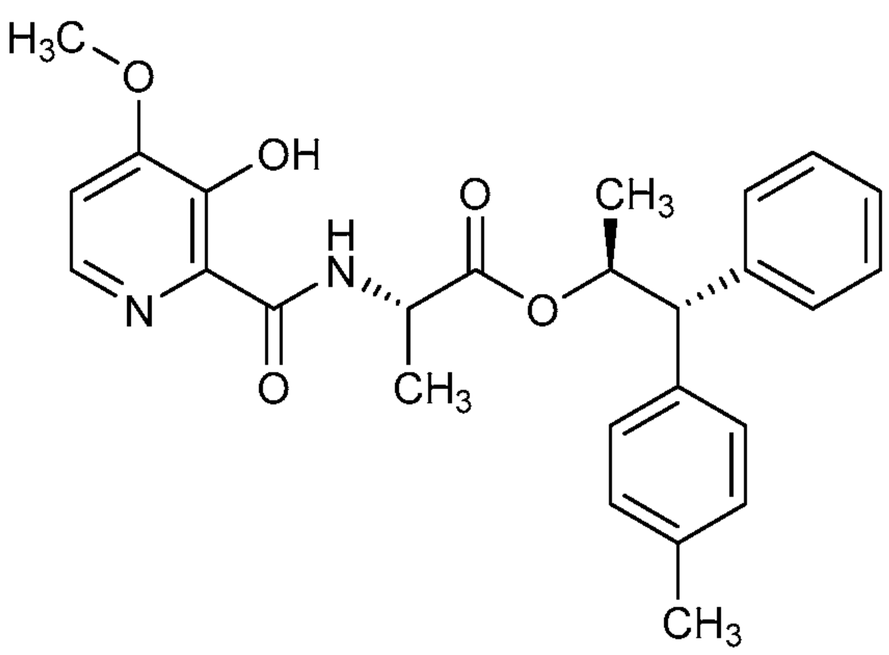
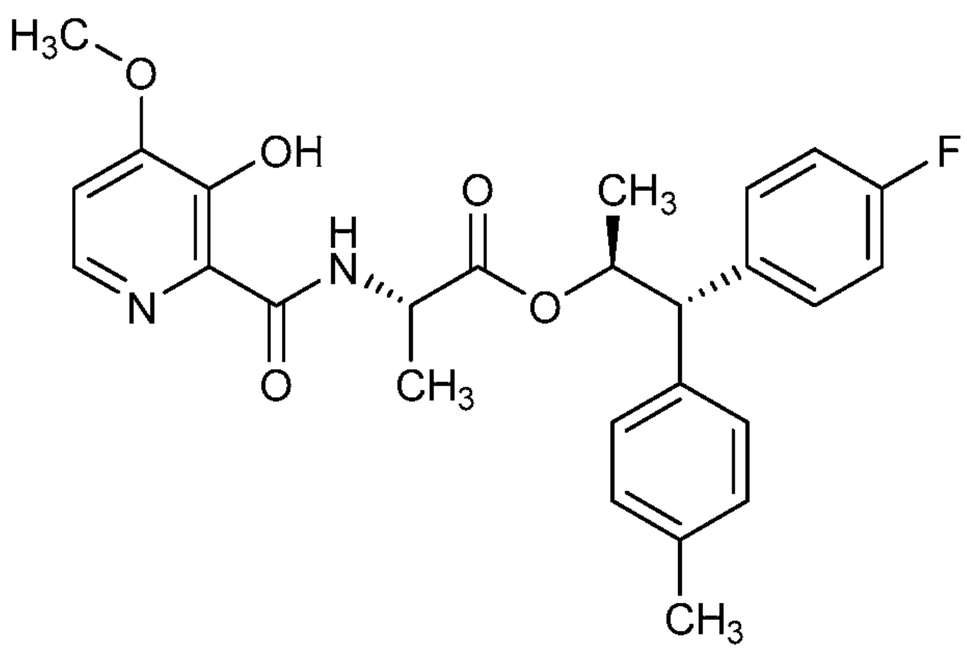
*Cmpd. No.	Structure	Prepared According To Example	Appearance
439		Example 5, Step 2	Colorless Foam
440		Example 5, Step 2	Colorless Oil
441		Example 5, Step 2	Colorless Oil

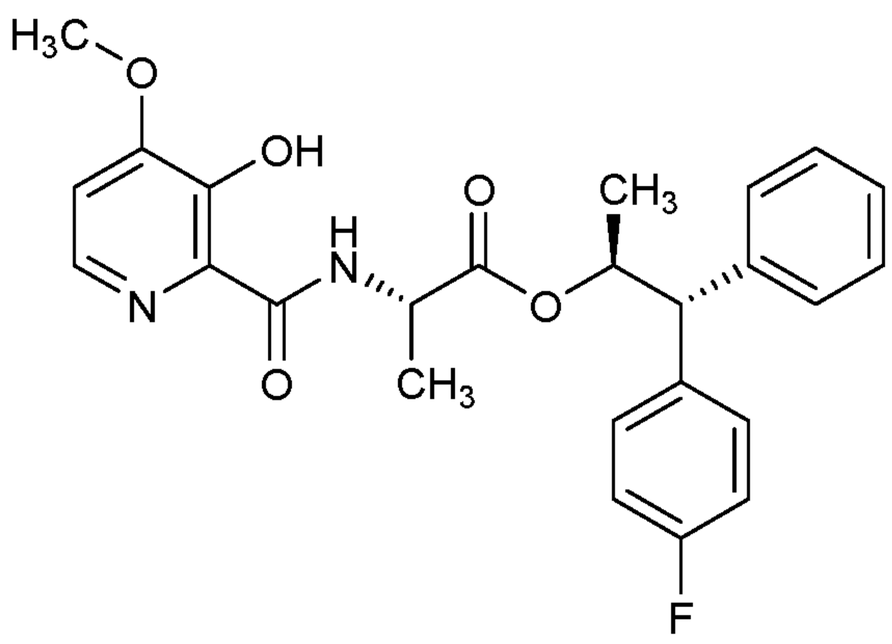
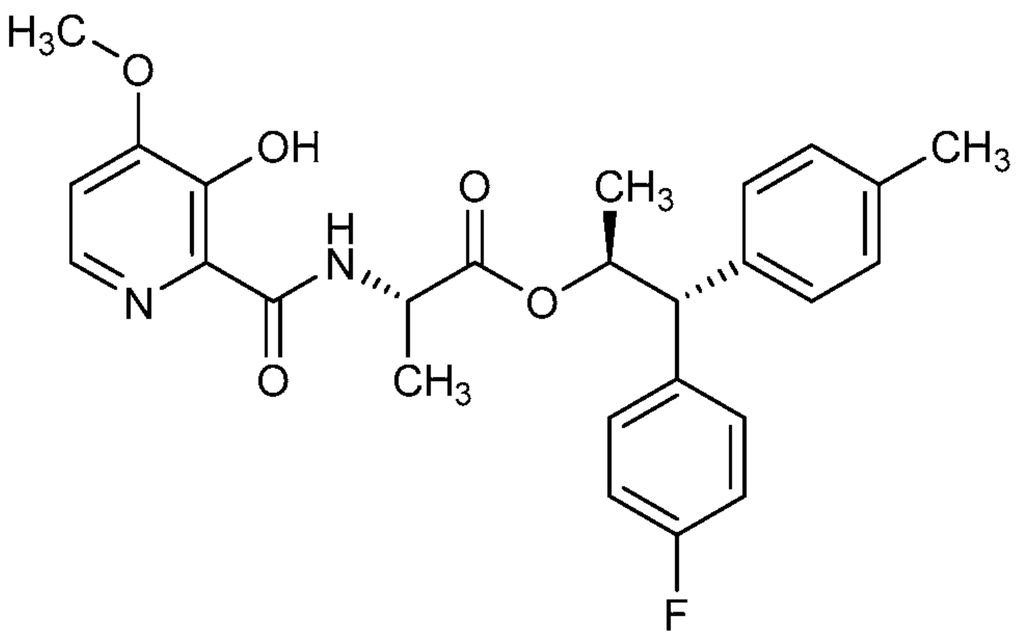
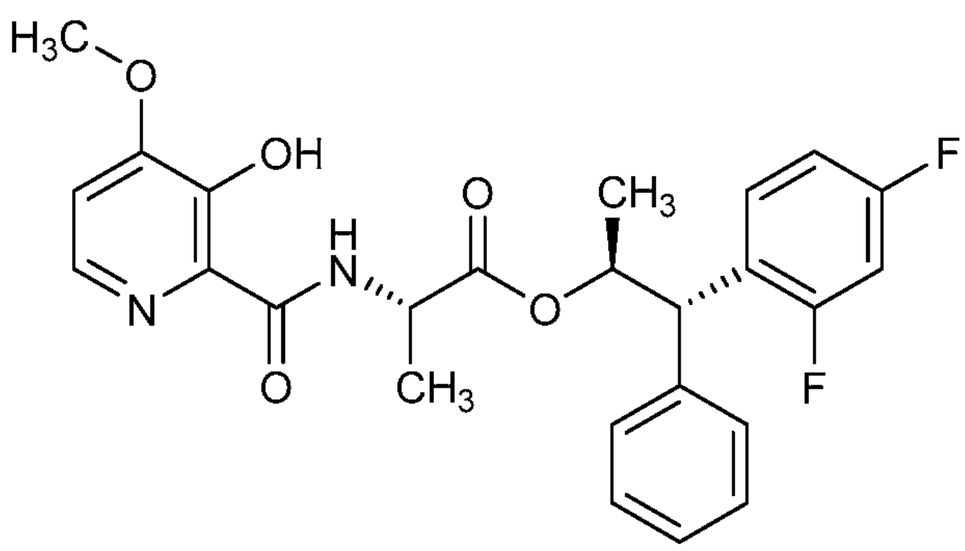
*Cmpd. No.	Structure	Prepared According To Example	Appearance
442		Example 5, Step 2	White Foam
443		Example 5, Step 2.	White Foam
444		Example 5, Step 2.	White Foam

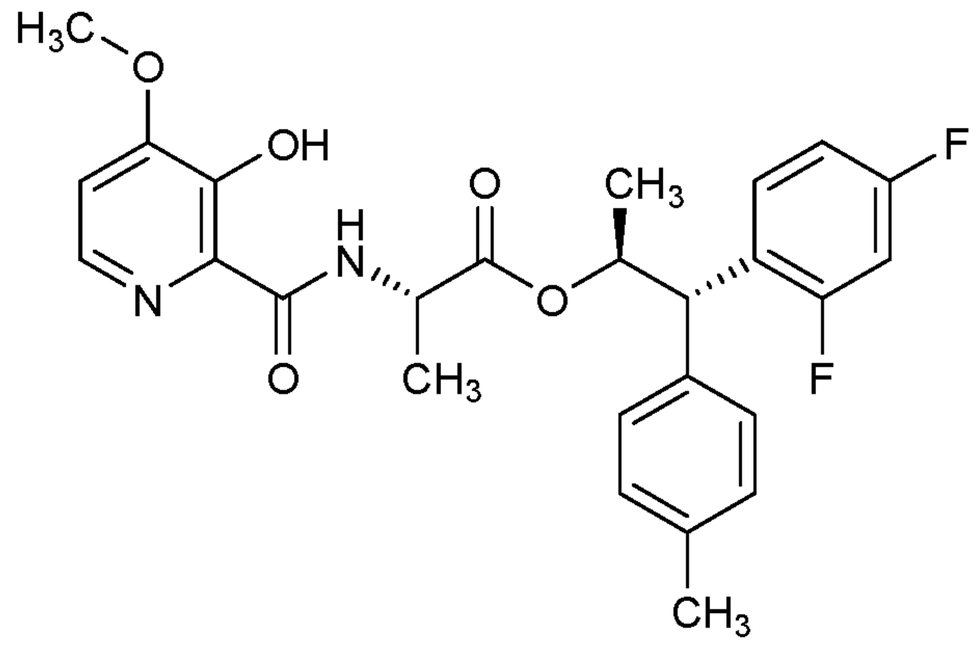
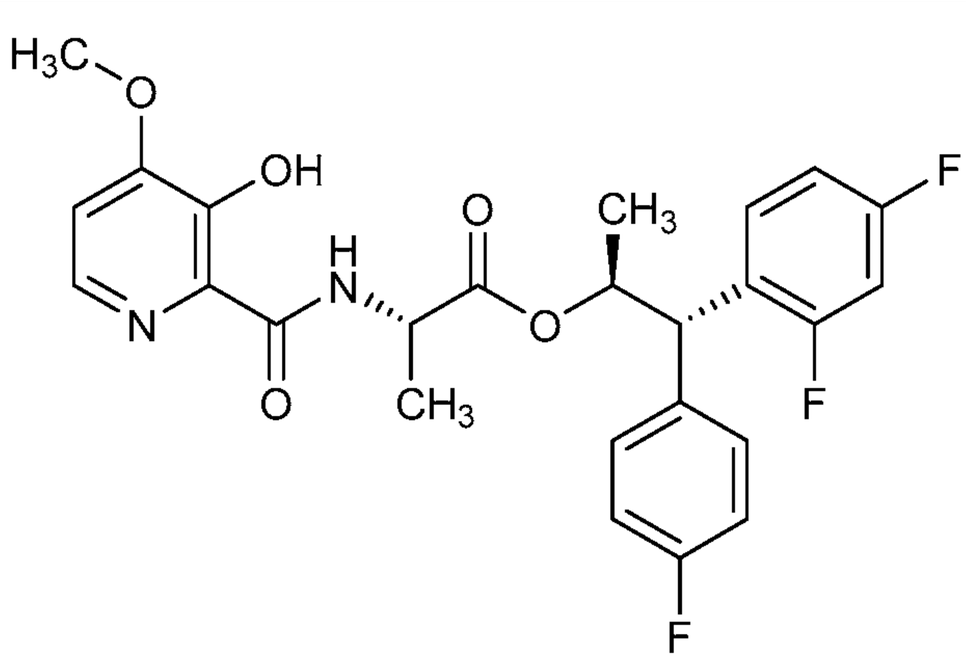
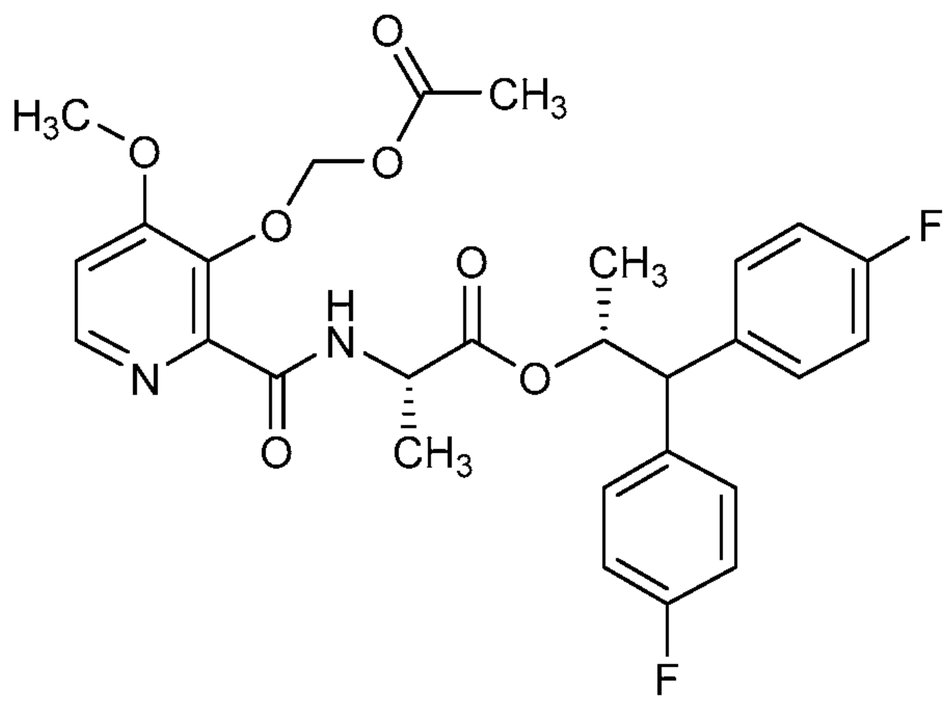
*Cmpd. No.	Structure	Prepared According To Example	Appearance
445		Example 5, Step 2.	White Foam
446		Example 5, Step 2.	White Foam
447		Example 5, Step 2	White Foam

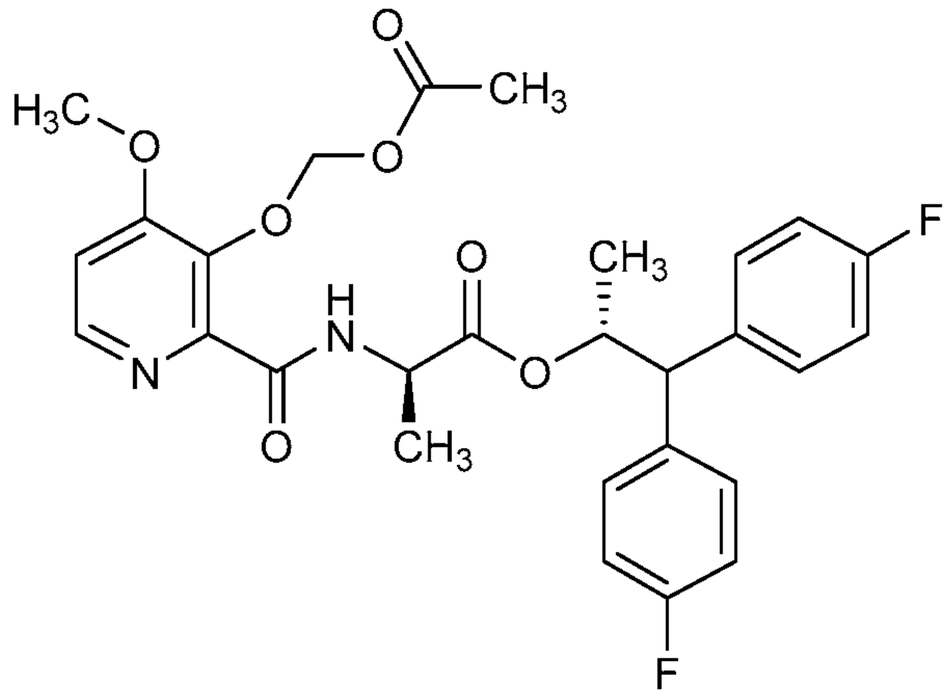
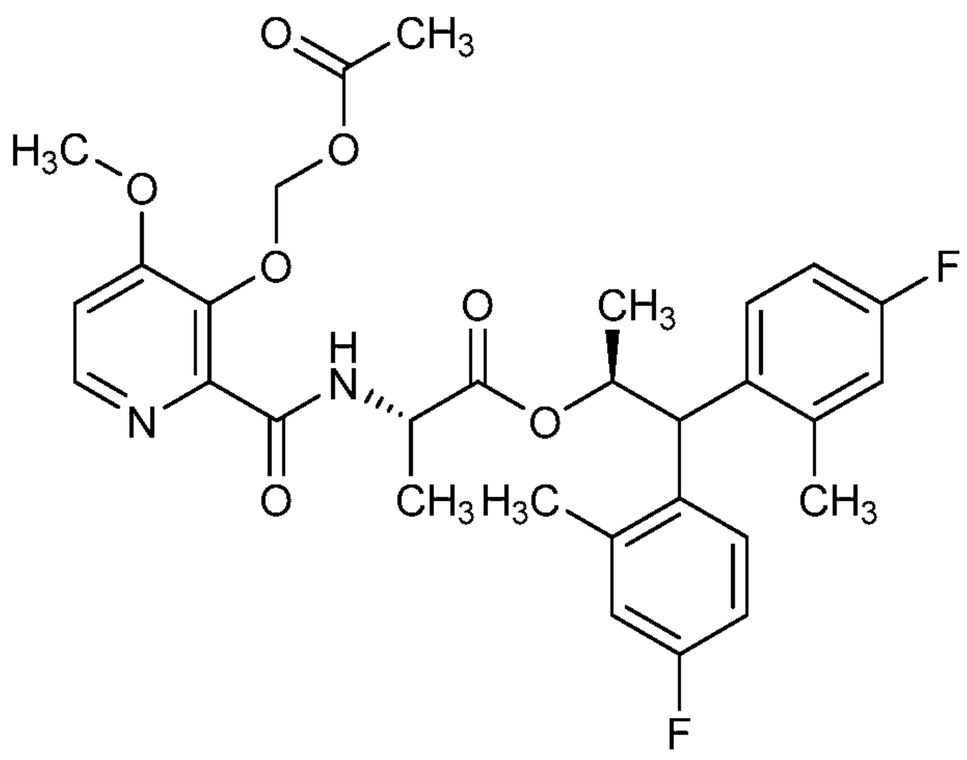
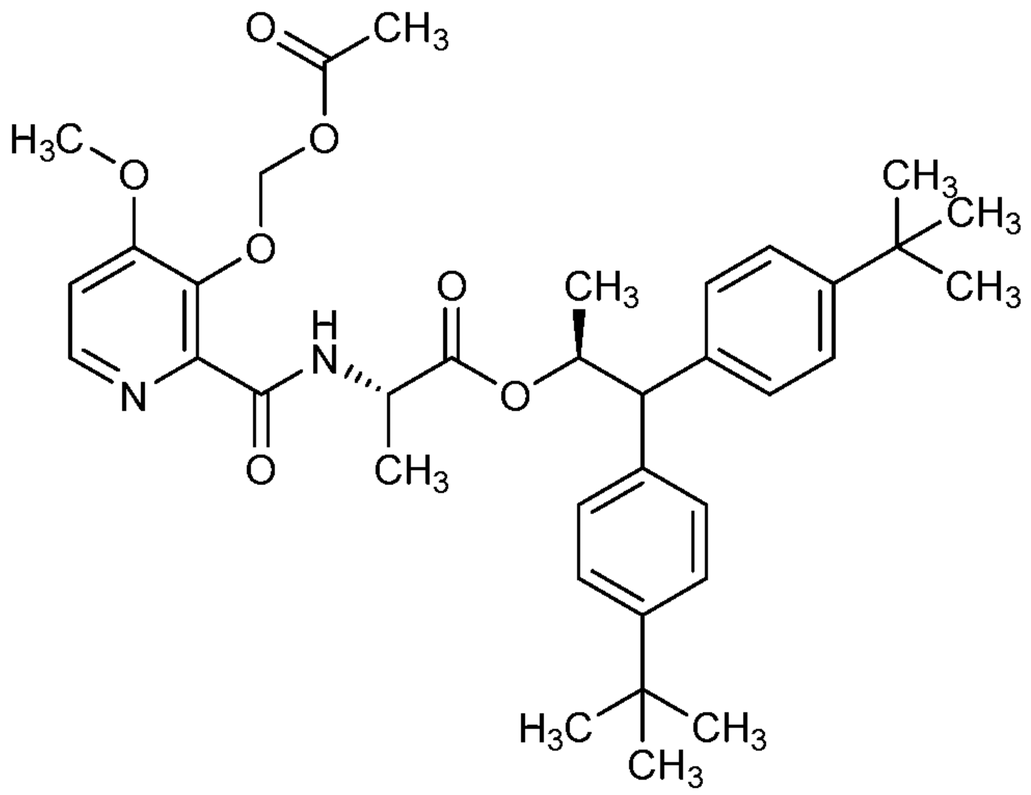
*Cmpd. No.	Structure	Prepared According To Example	Appearance
448		Example 5, Step 2	White Foam
449		Example 5, Step 2	White Foam
450		Example 5, Step 2	White Foam

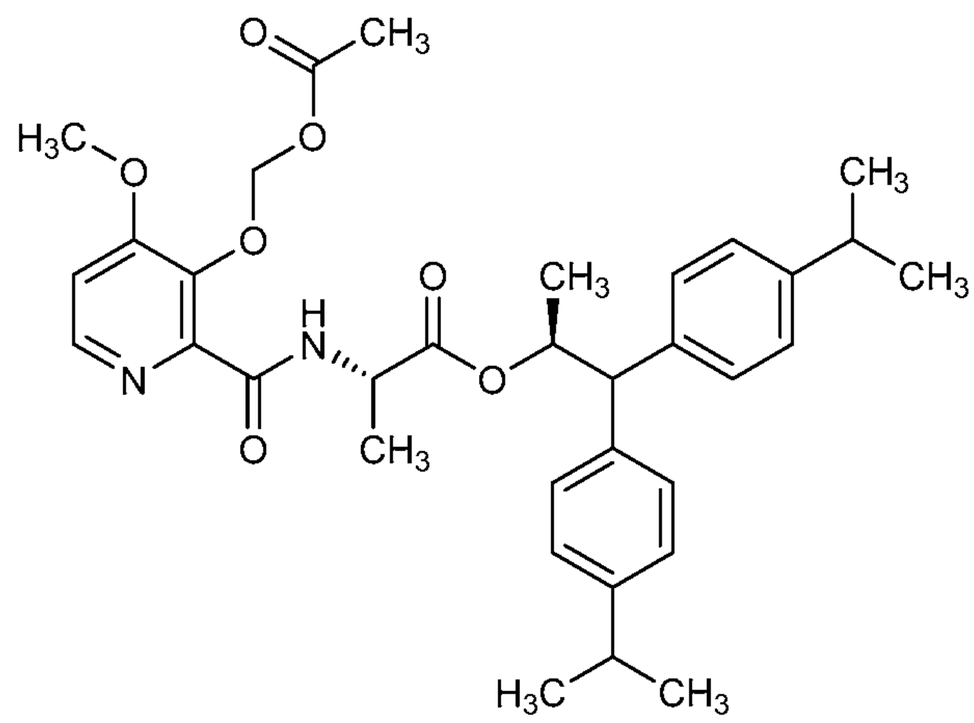
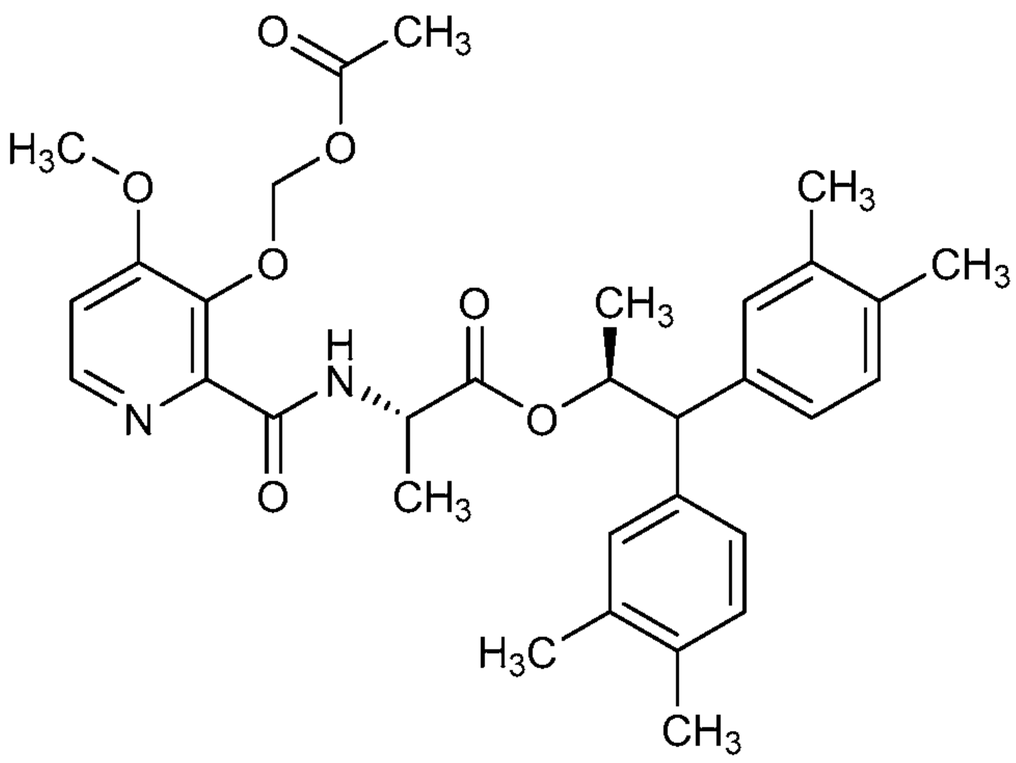
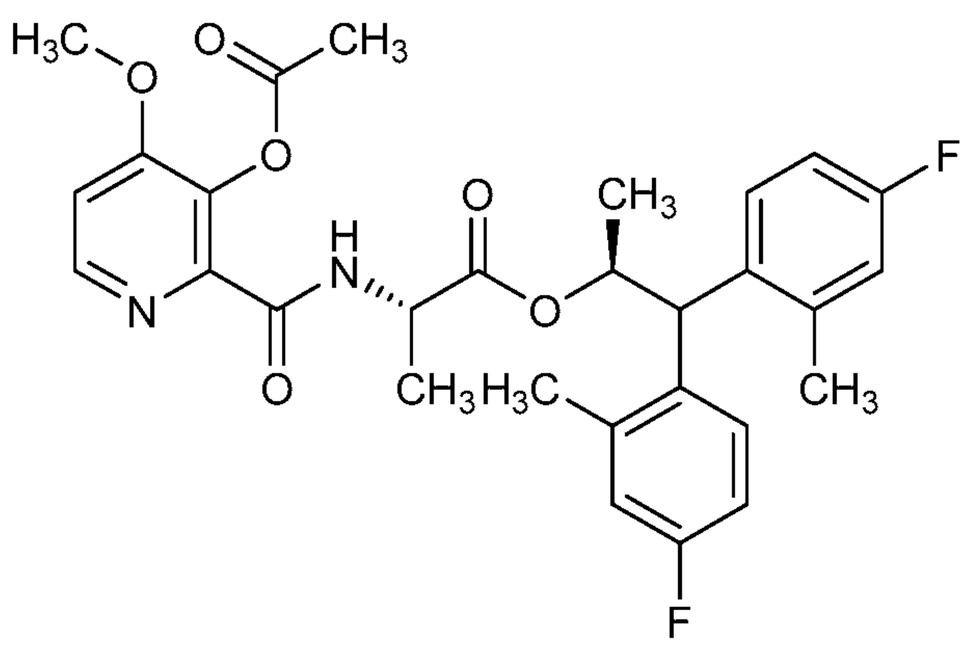
*Cmpd. No.	Structure	Prepared According To Example	Appearance
451		Example 5, Step 2	White Foam
452		Example 5, Step 2	Colorless Oil
453		Example 5, Step 2	Colorless Oil

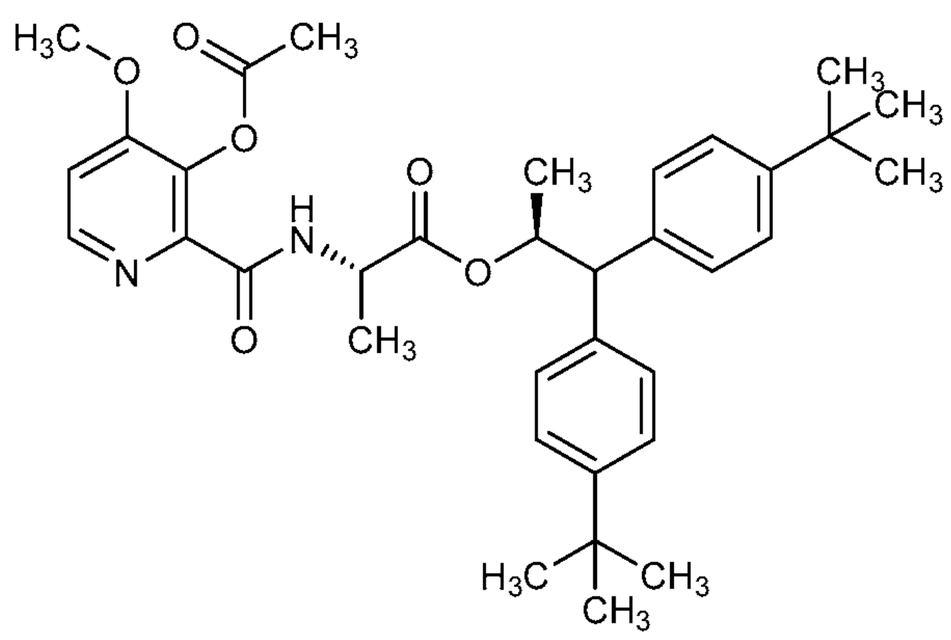
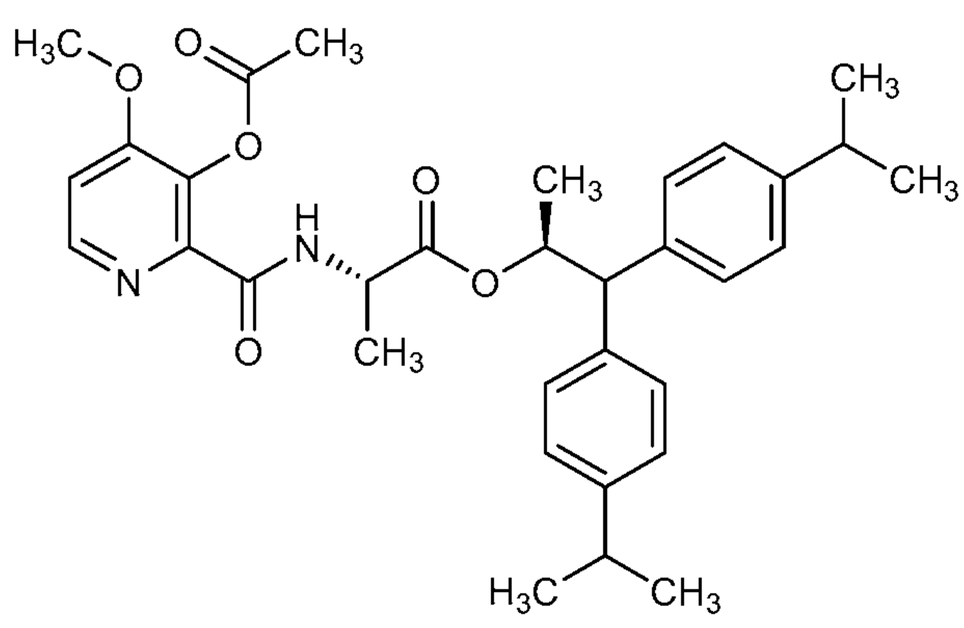
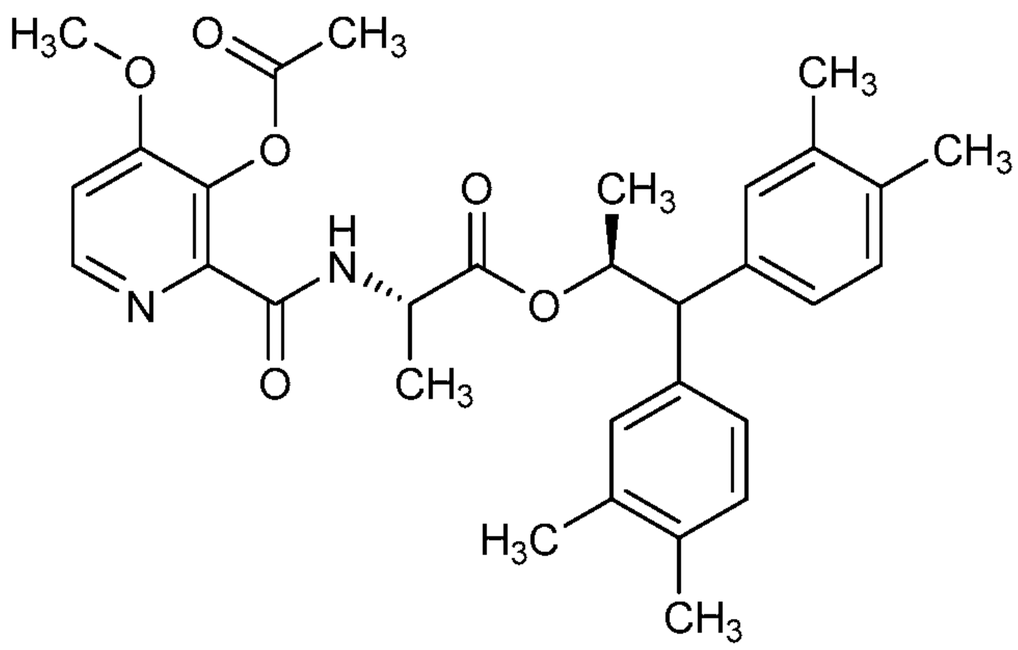
*Cmpd. No.	Structure	Prepared According To Example	Appearance
454		Example 5, Step 2.	White Foam
455		Example 5, Step 2.	White Foam
456		Example 5, Step 2.	White Foam

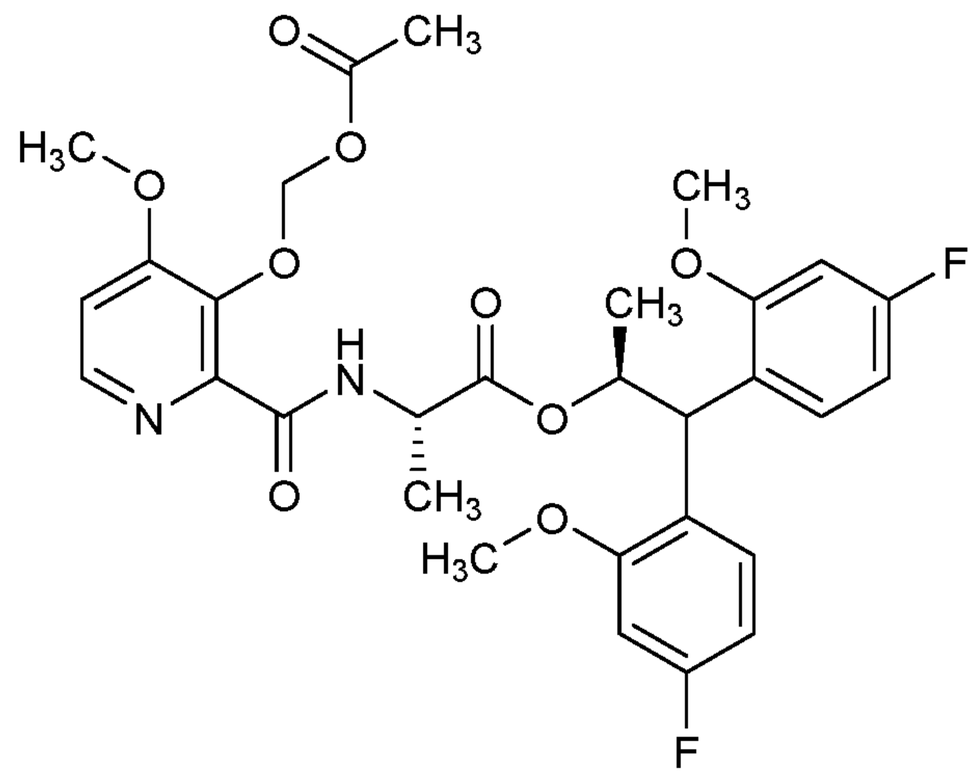
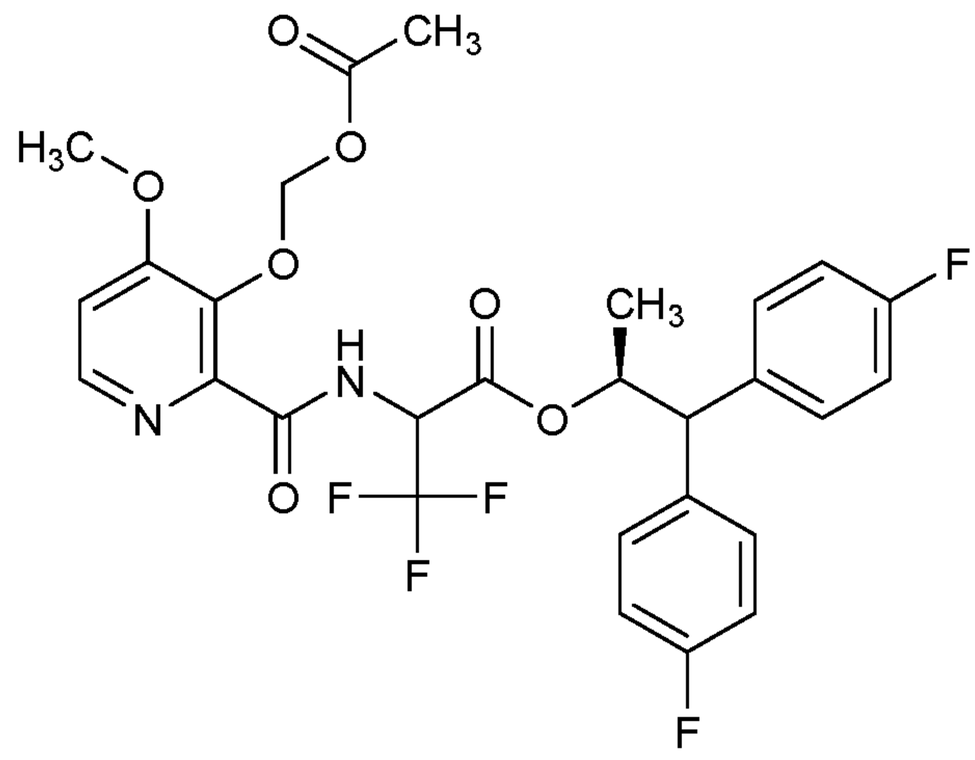
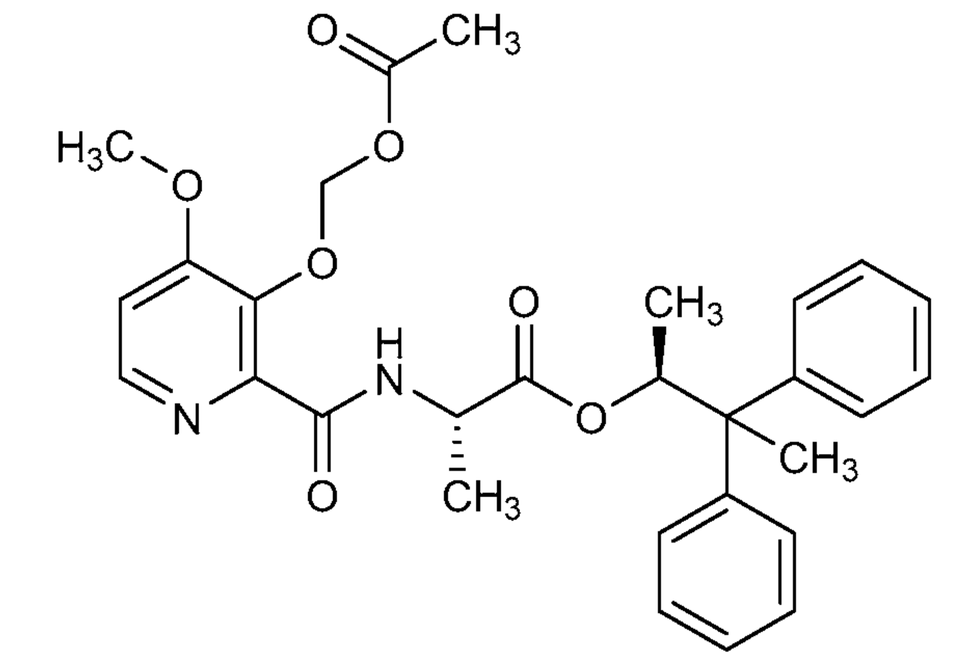
*Cmpd. No.	Structure	Prepared According To Example	Appearance
457		Example 5, Step 2.	White Foam
458		Example 5, Step 2.	White Foam
459		Example 5, Step 2.	White Foam

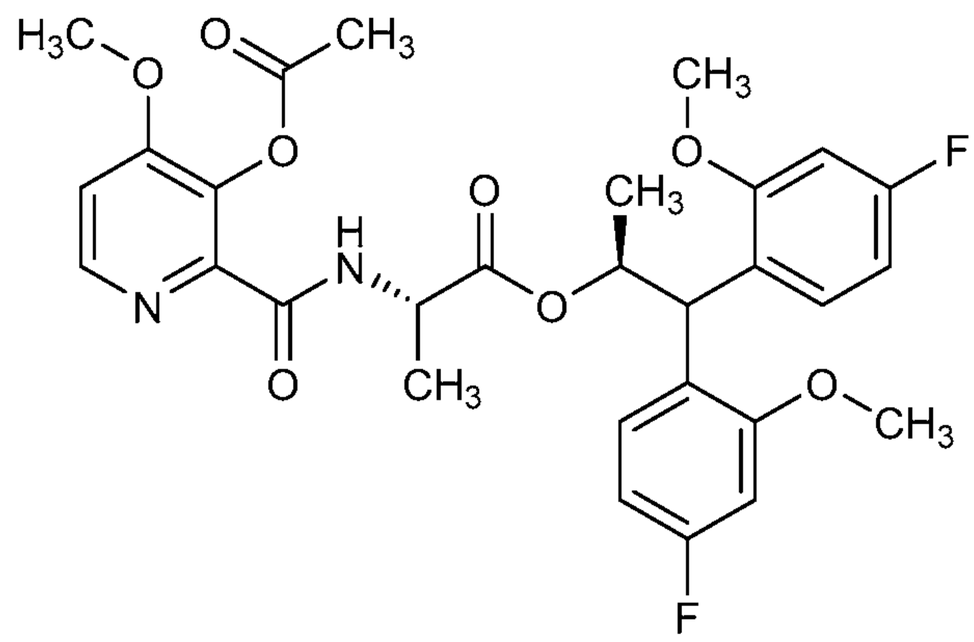
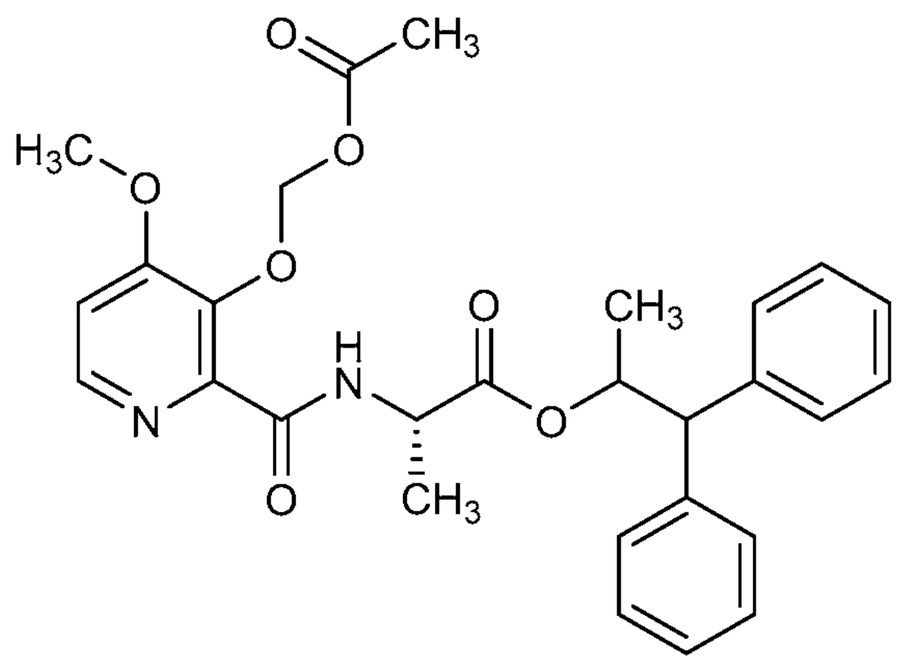
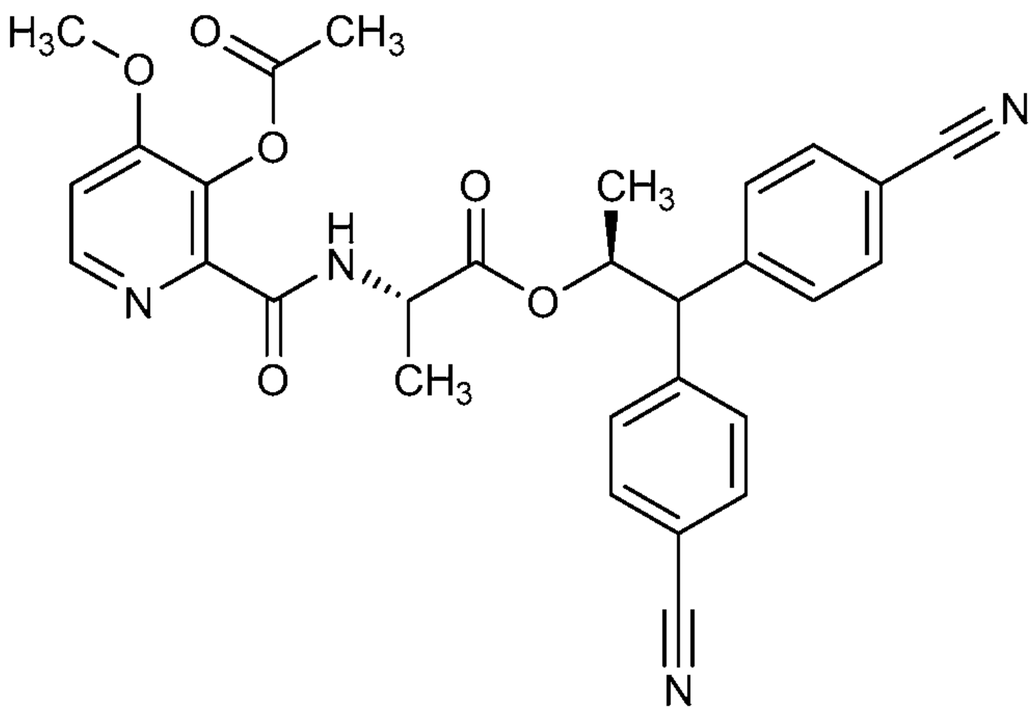
*Cmpd. No.	Structure	Prepared According To Example	Appearance
460		Example 5, Step 2.	White Foam
461		Example 5, Step 2.	White Foam
462		Example 6B.	Slightly Opaque Colorless Viscous Oil

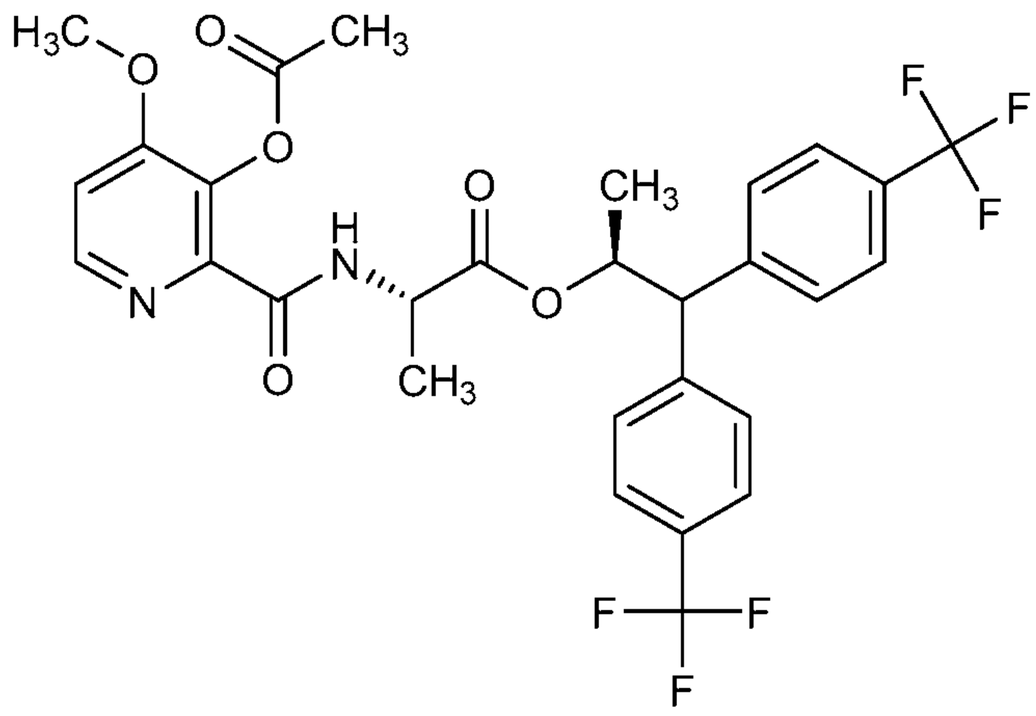
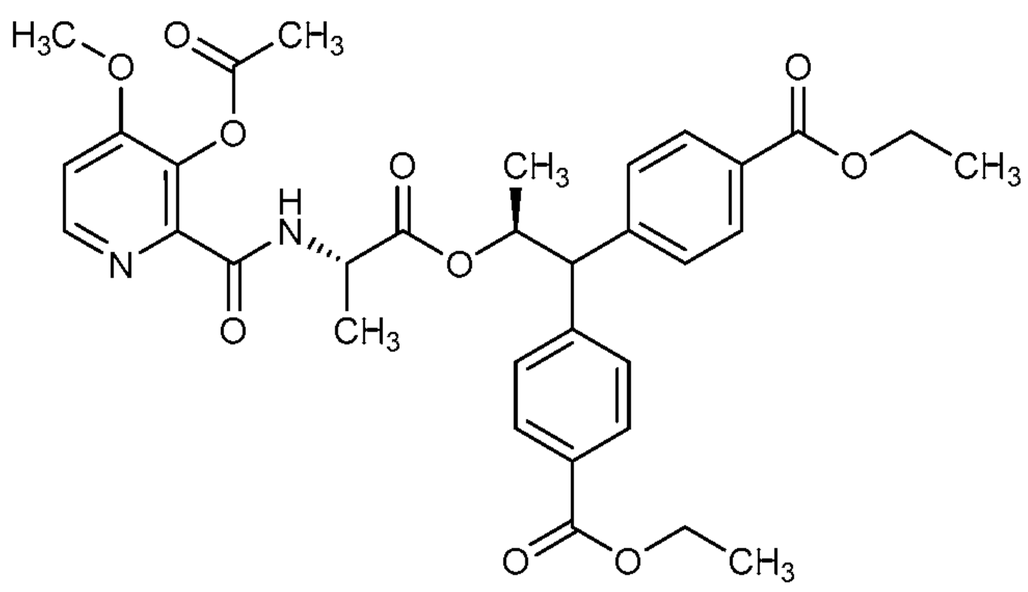
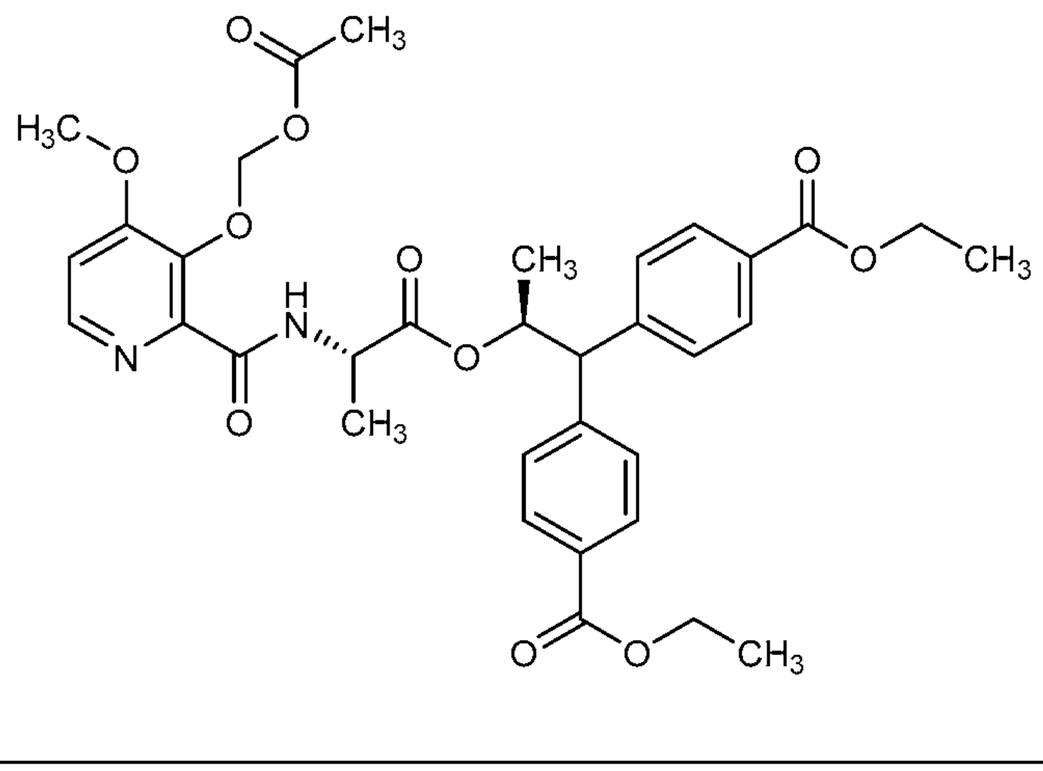
*Cmpd. No.	Structure	Prepared According To Example	Appearance
463		Example 6B.	Slightly Opaque Colorless Viscous Oil
464		Example 6B.	Yellow Oil
465		Example 6B.	Clear, Colorless Oil

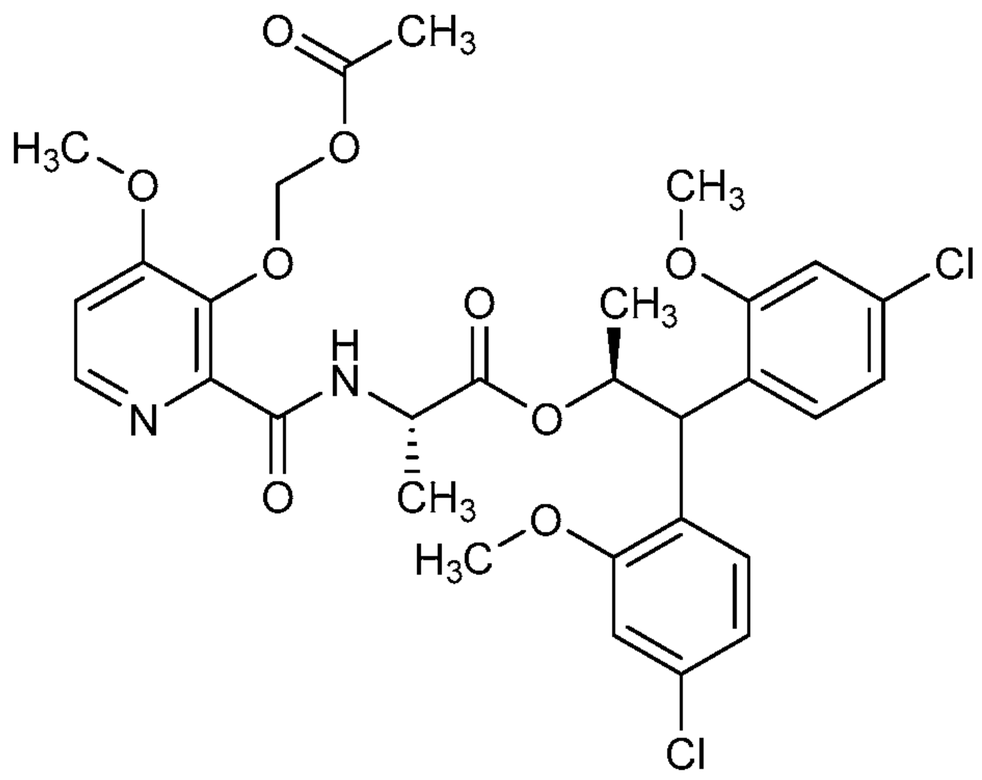
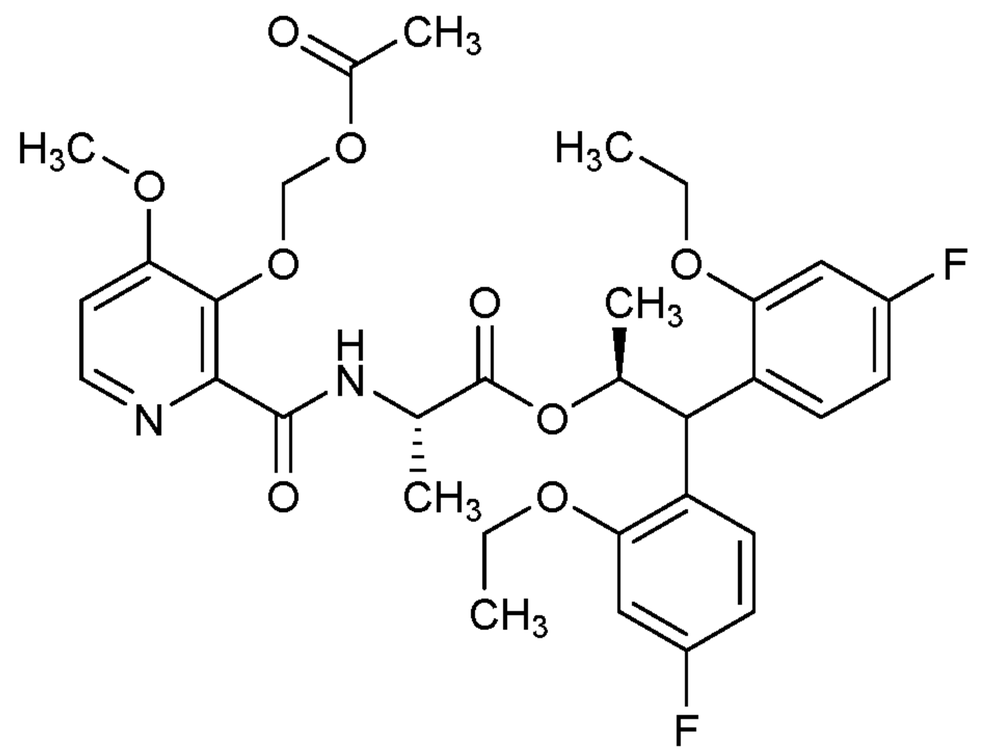
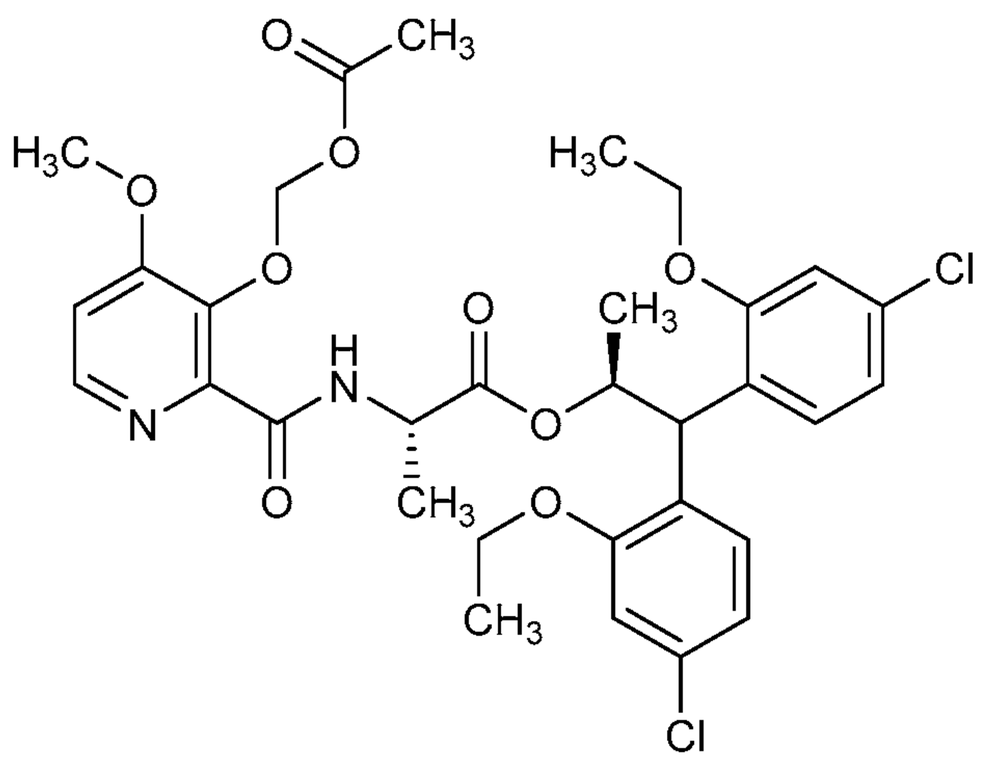
*Cmpd. No.	Structure	Prepared According To Example	Appearance
466		Example 6B.	Pale Yellow Oil
467		Example 6B.	Pale Yellow Oil
468		Example 6A.	Fluffy White Powder

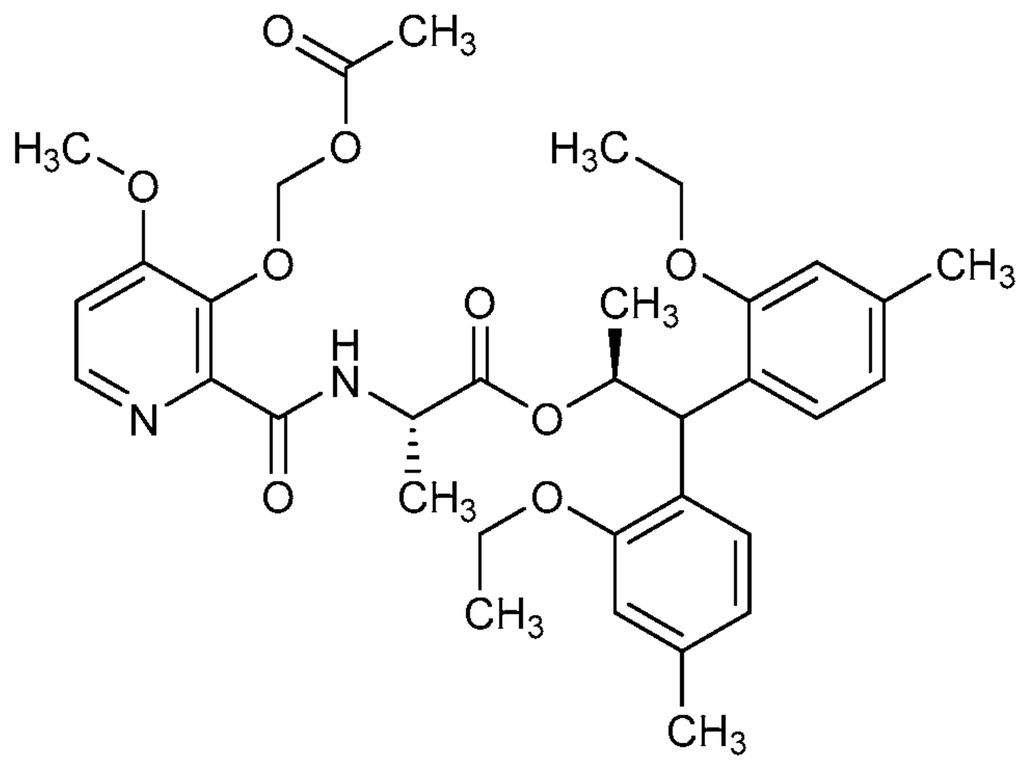
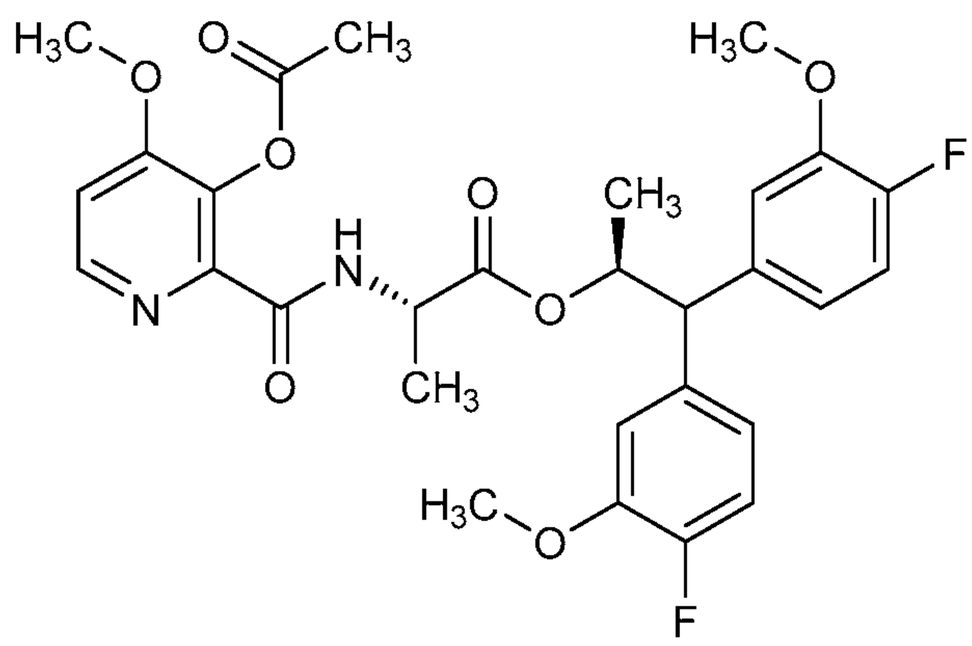
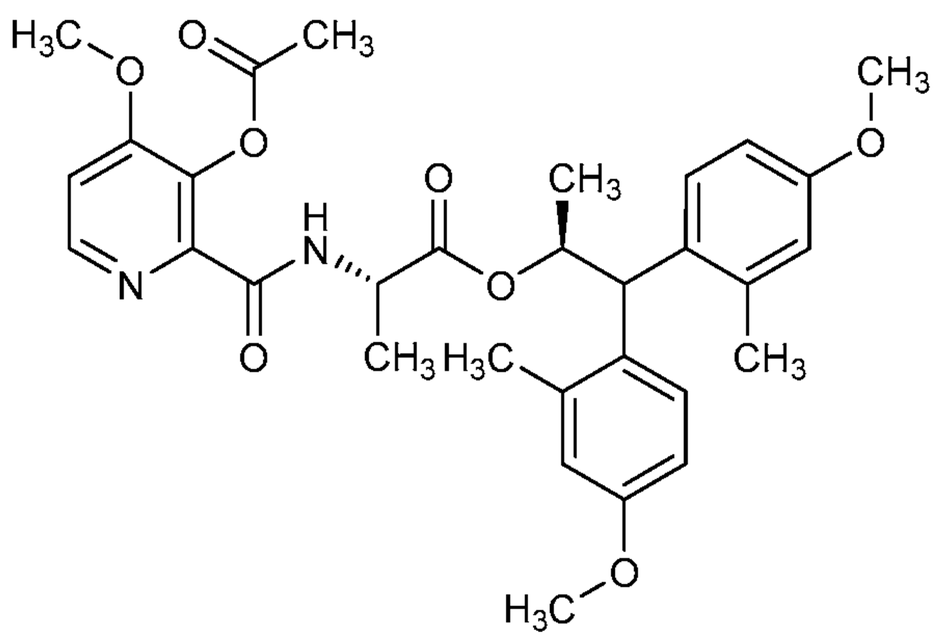
*Cmpd. No.	Structure	Prepared According To Example	Appearance
469		Example 6A.	Clear, Colorless Oil
470		Example 6A.	Clear, Colorless Oil
471		Example 6A.	Clear, Colorless Oil

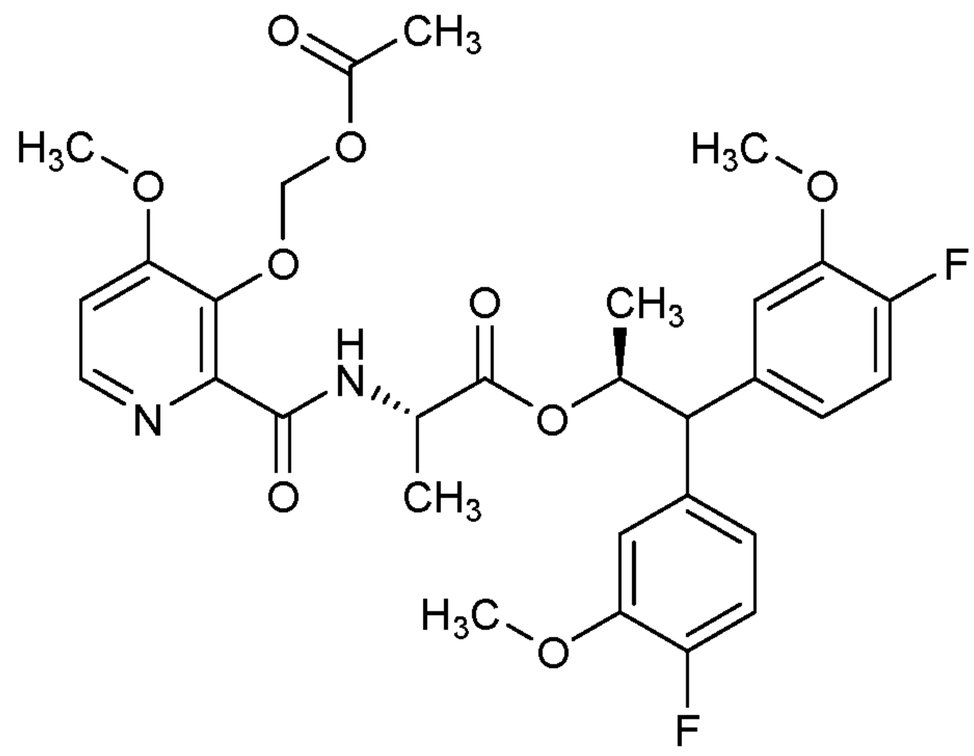
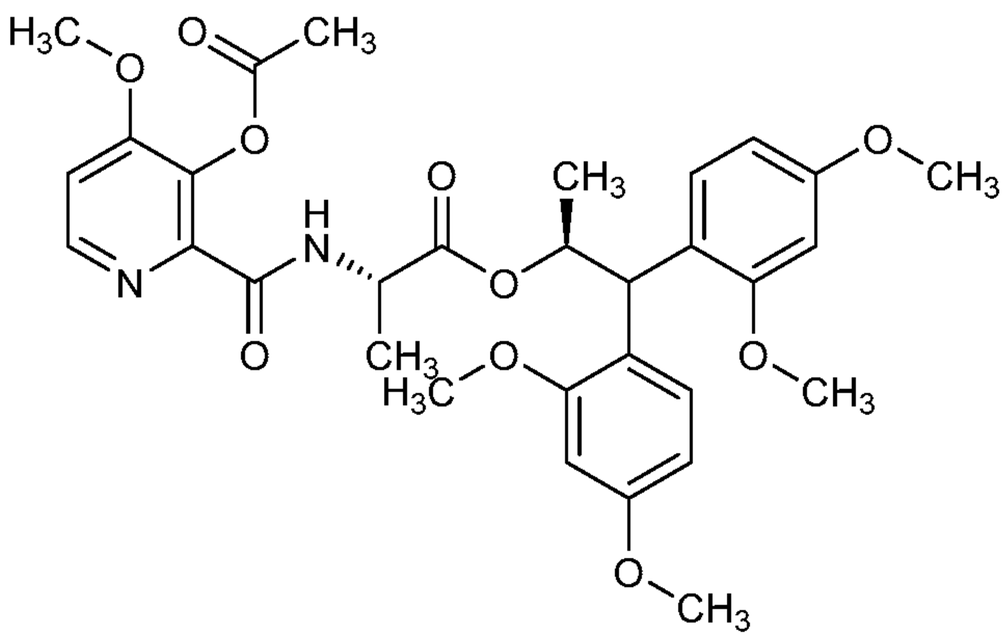
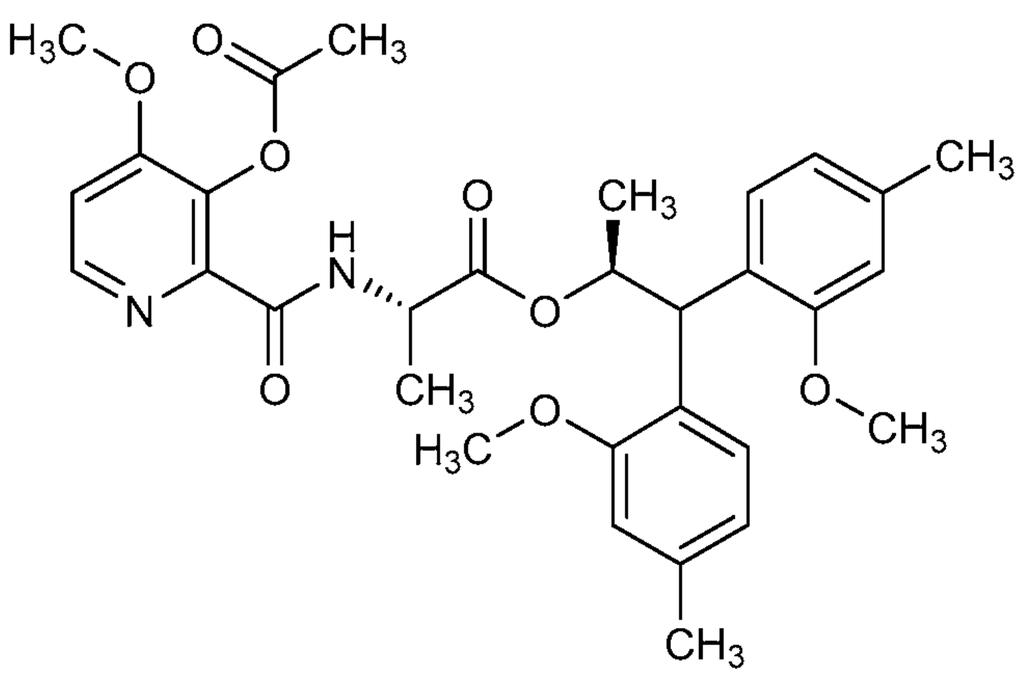
*Cmpd. No.	Structure	Prepared According To Example	Appearance
472		Example 6B.	White Foam
473		Example 6B.	Sticky Wax
474		Example 6B.	Colorless Oil

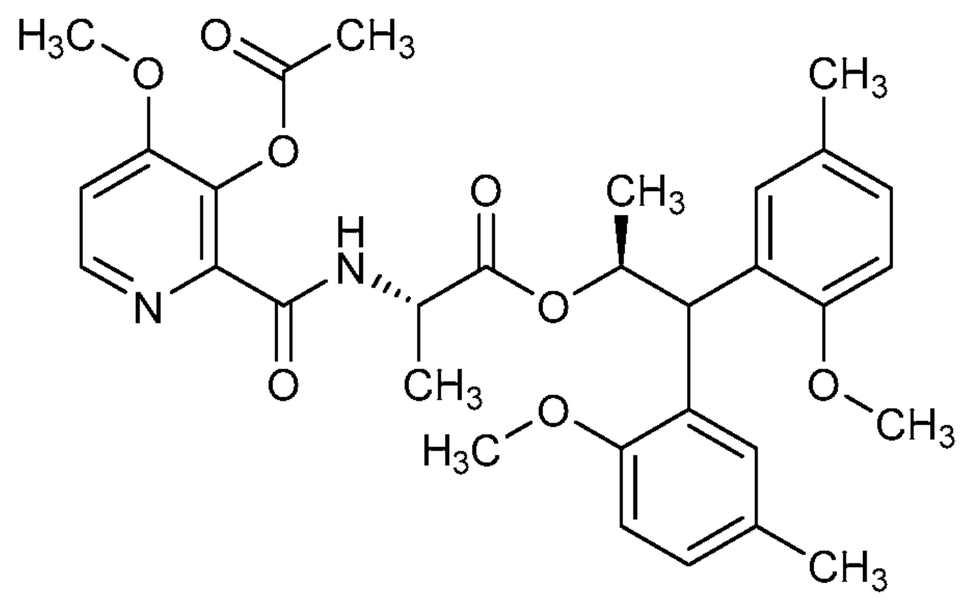
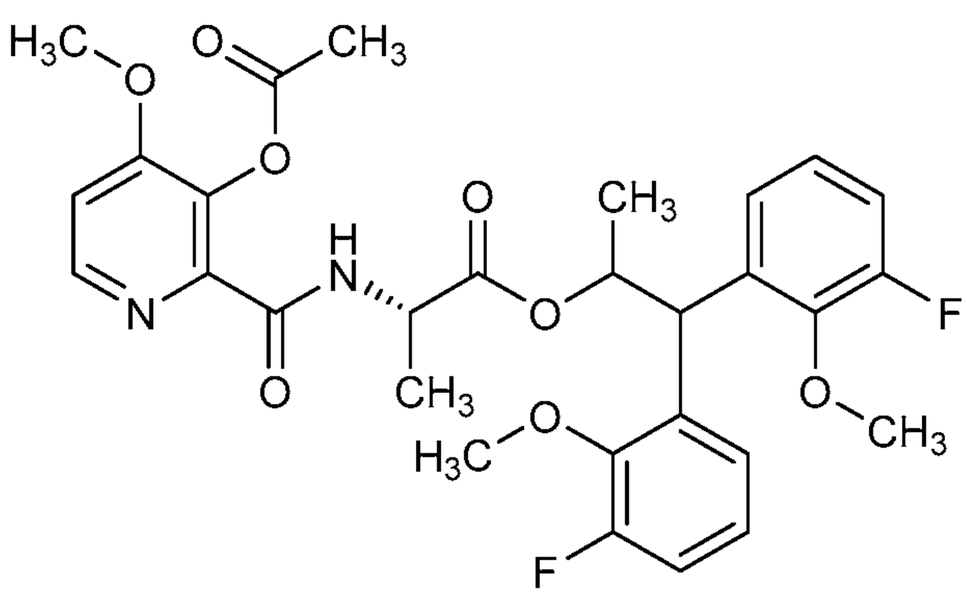
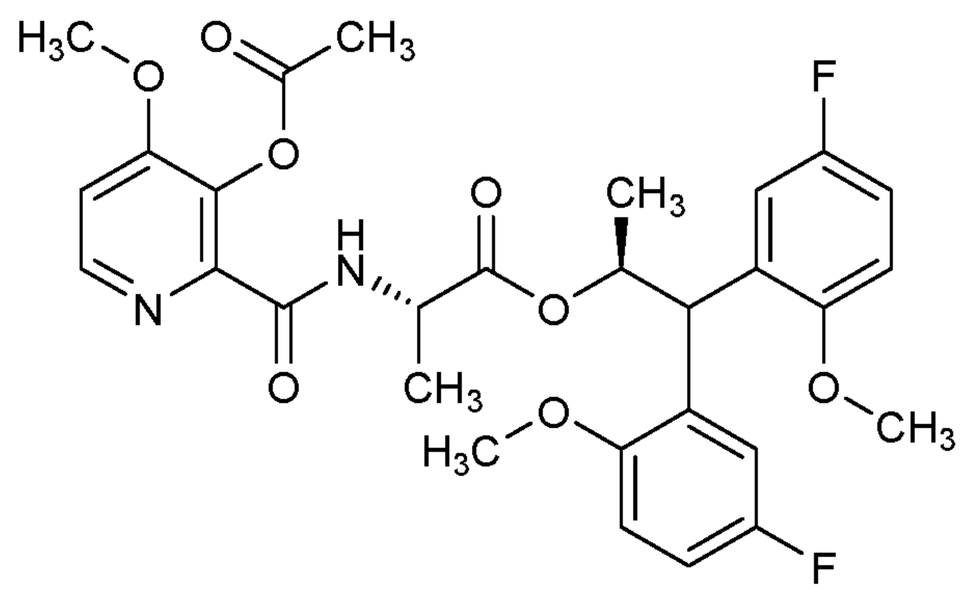
*Cmpd. No.	Structure	Prepared According To Example	Appearance
475		Example 6A.	White Foam
476		Example 6B.	White Foam
477		Example 6A.	White Foam

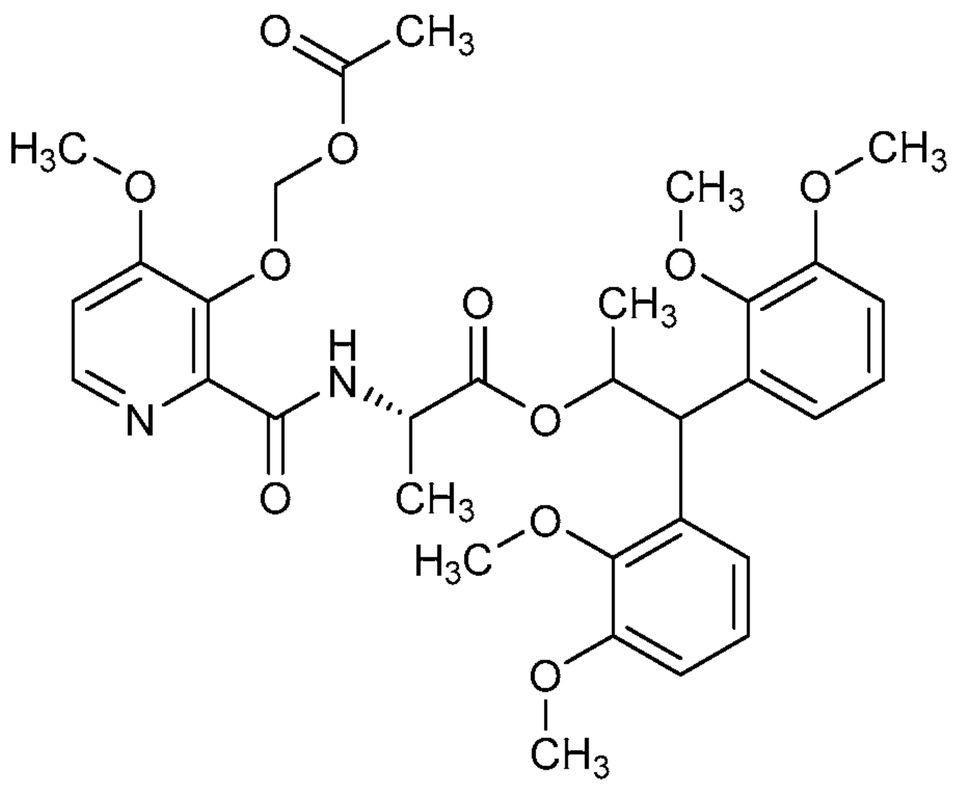
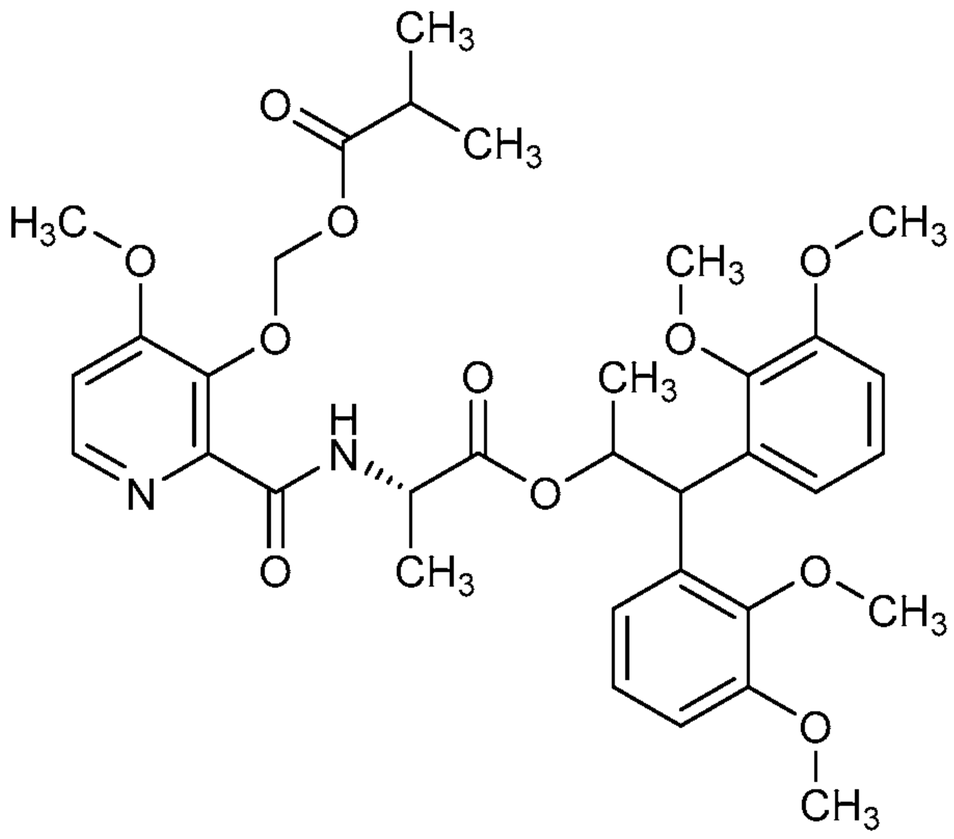
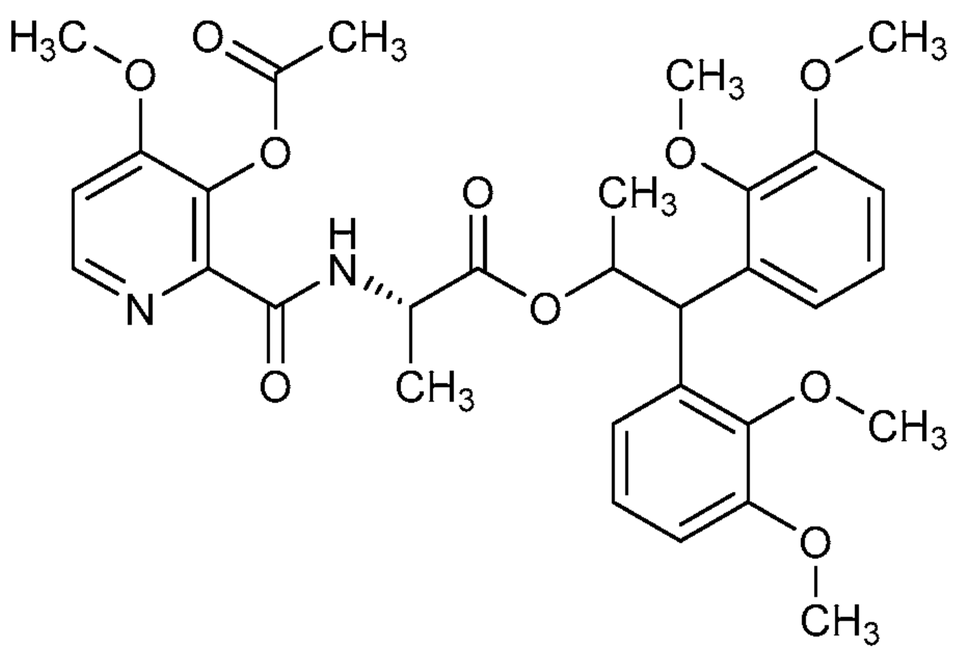
*Cmpd. No.	Structure	Prepared According To Example	Appearance
478		Example 6A.	White Foam
479		Example 6A.	White Foam
480		Example 6B.	White Foam

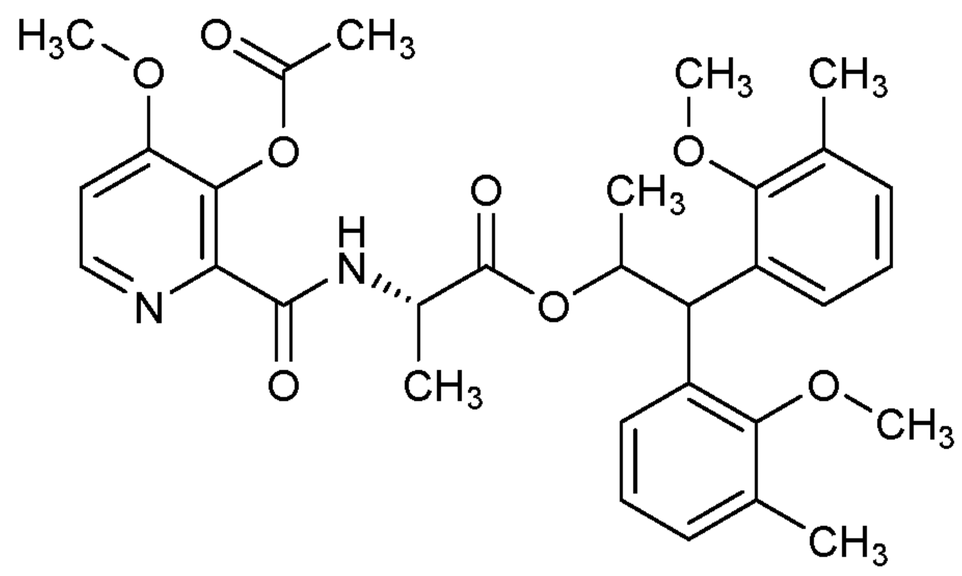
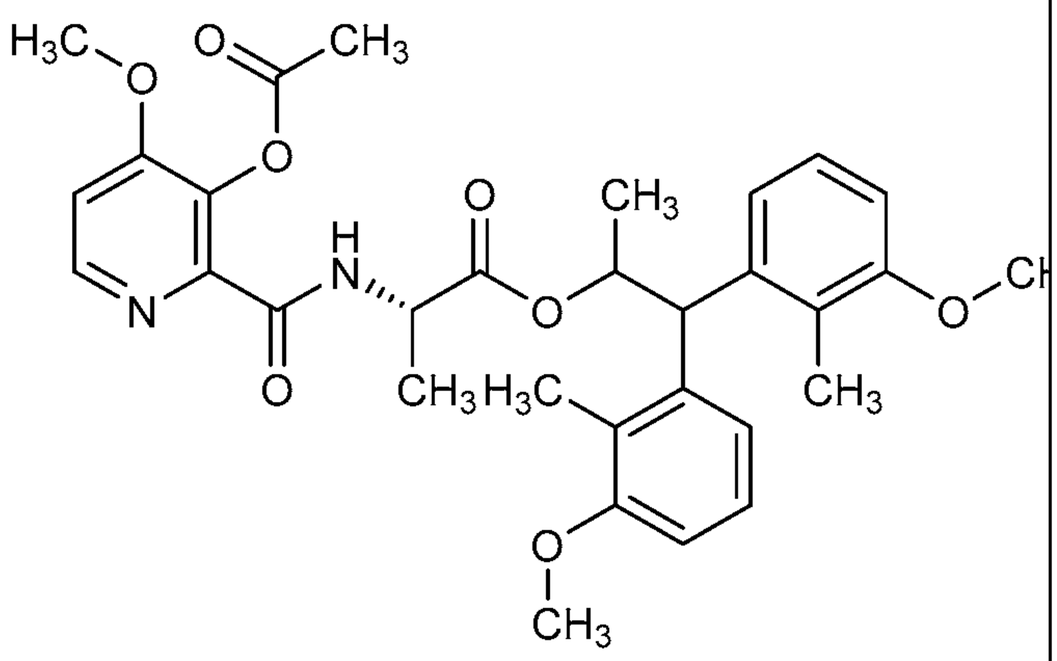
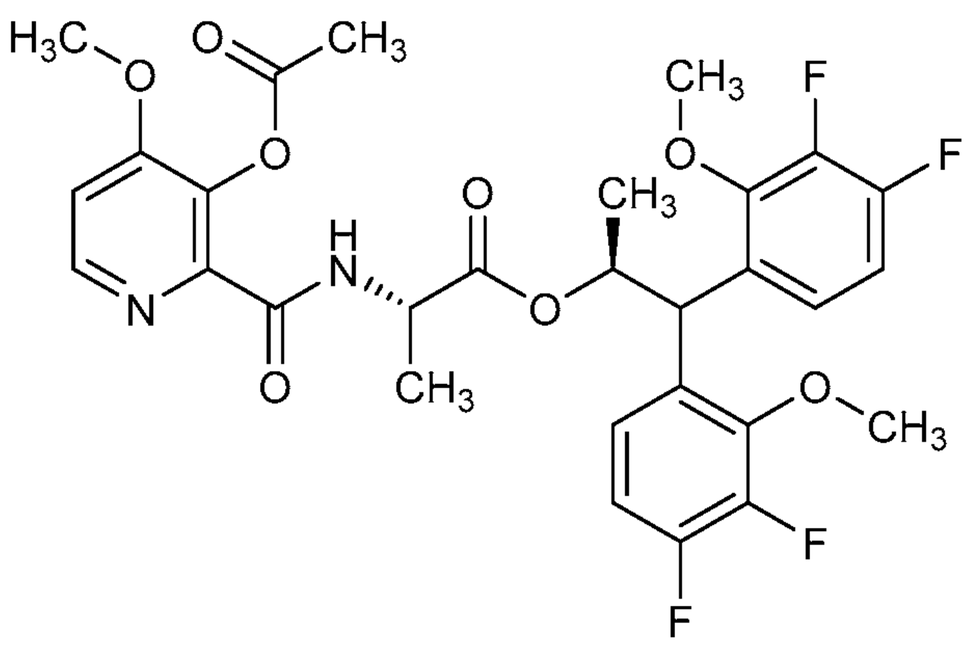
*Cmpd. No.	Structure	Prepared According To Example	Appearance
481		Example 6B.	White Foam
482		Example 6B.	White Foam
483		Example 6B.	White Foam

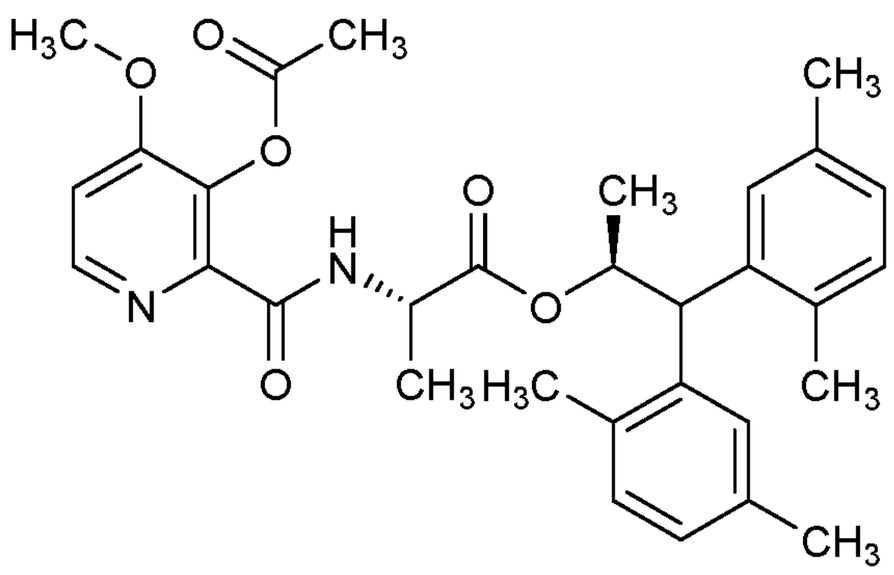
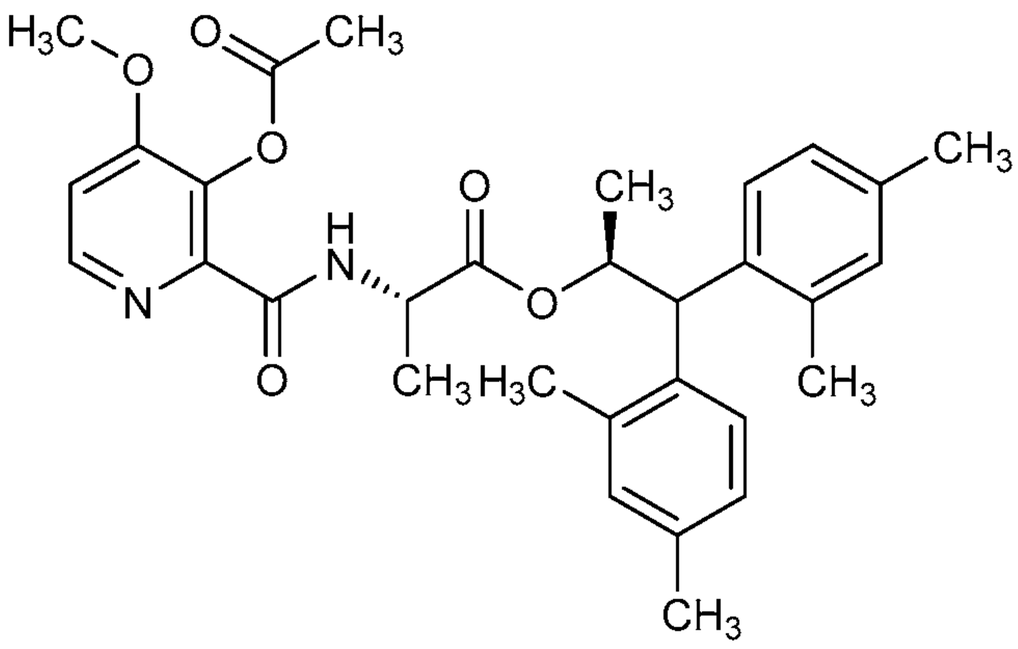
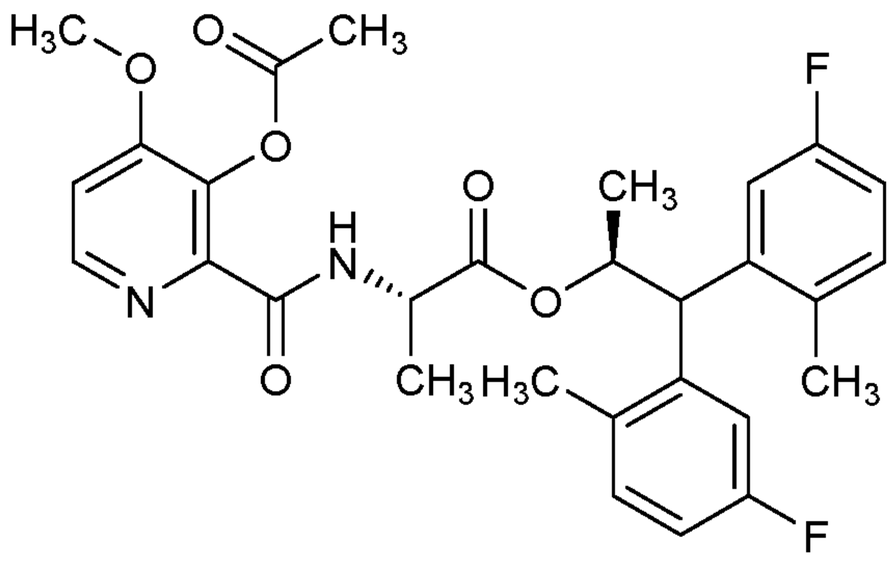
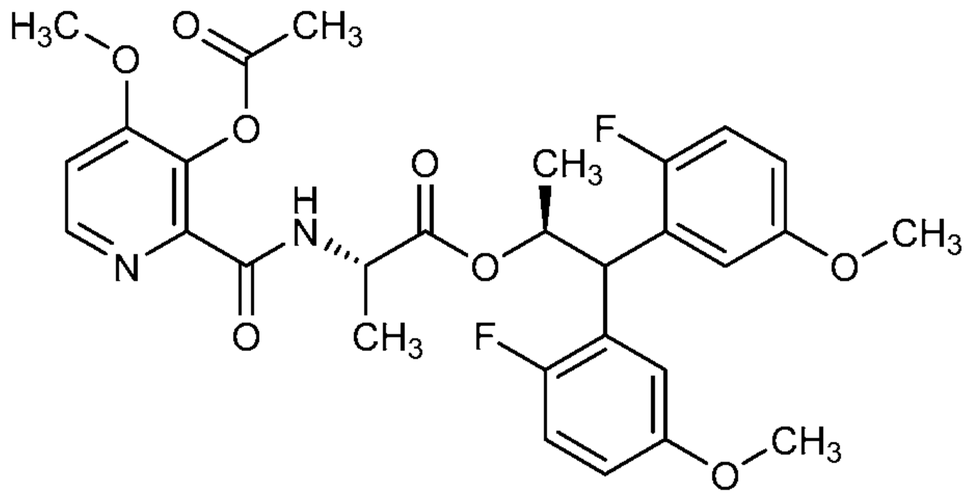
*Cmpd. No.	Structure	Prepared According To Example	Appearance
484		Example 6B.	White Foam
485		Example 6A	Colorless Oil
486		Example 6A	Colorless Oil

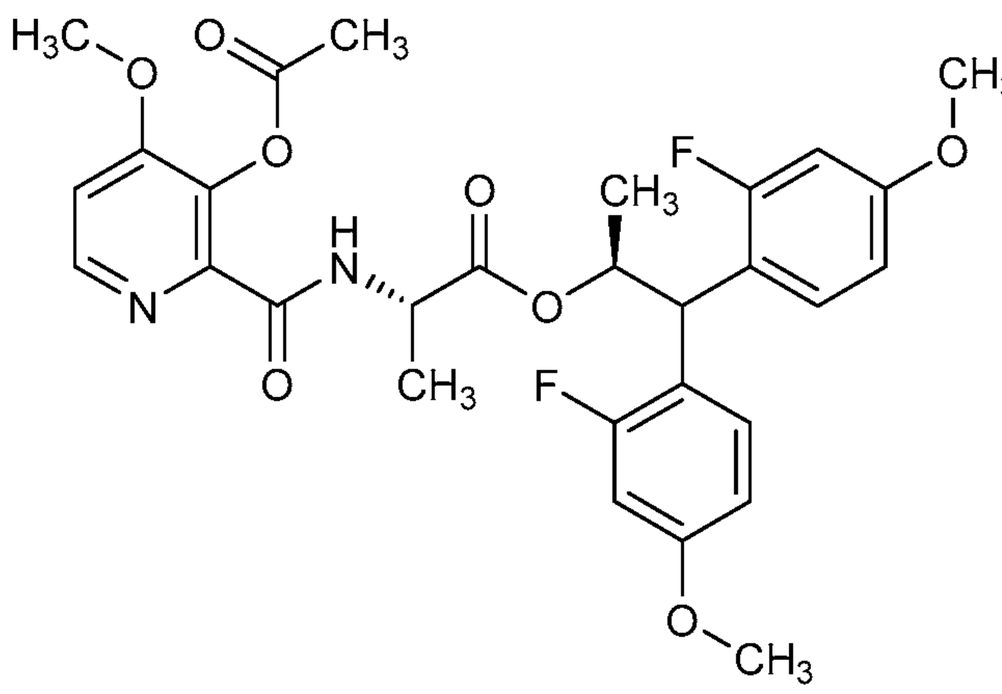
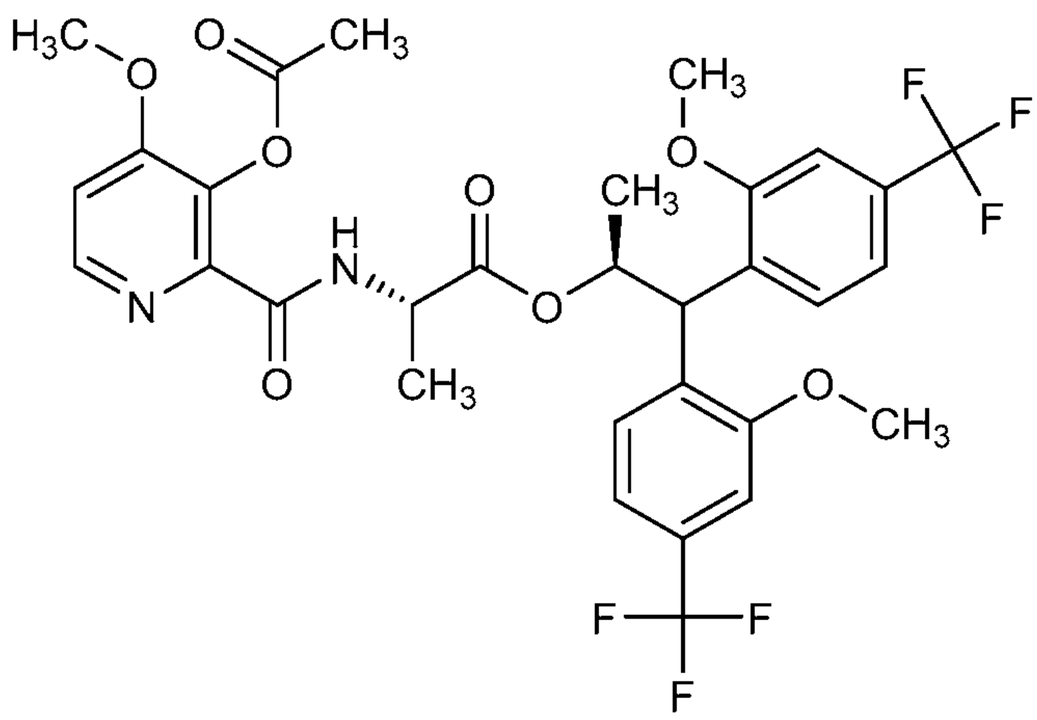
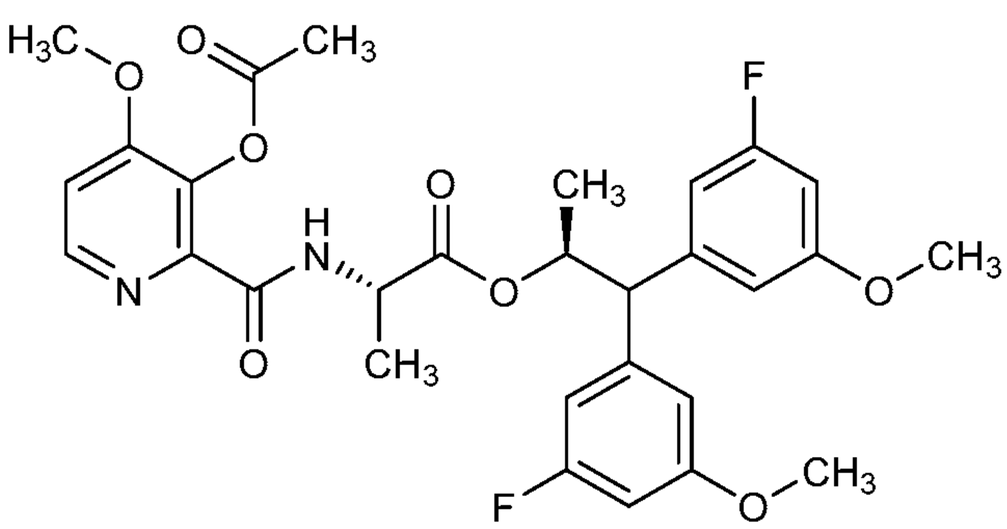
*Cmpd. No.	Structure	Prepared According To Example	Appearance
487		Example 6B	Colorless Oil
488		Example 6A.	White Foam
489		Example 6A.	White Foam

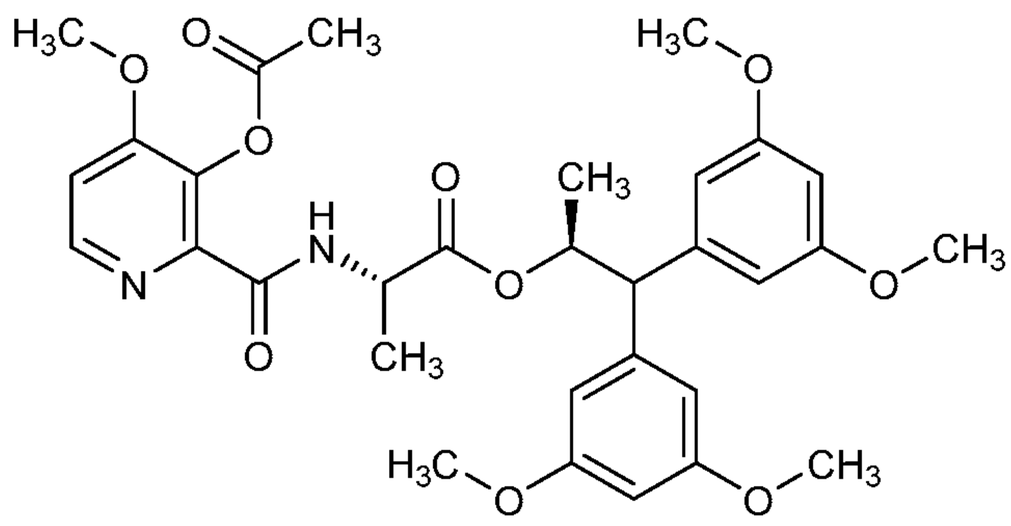
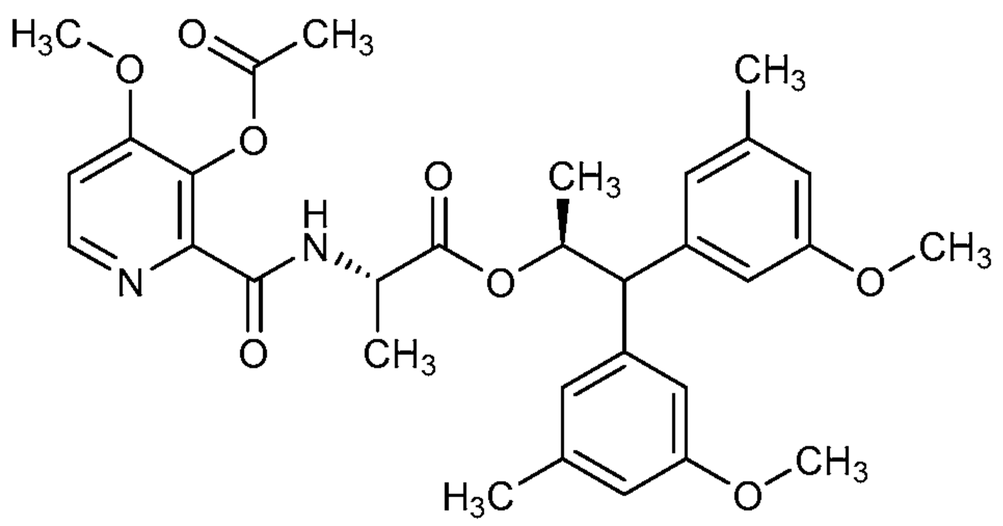
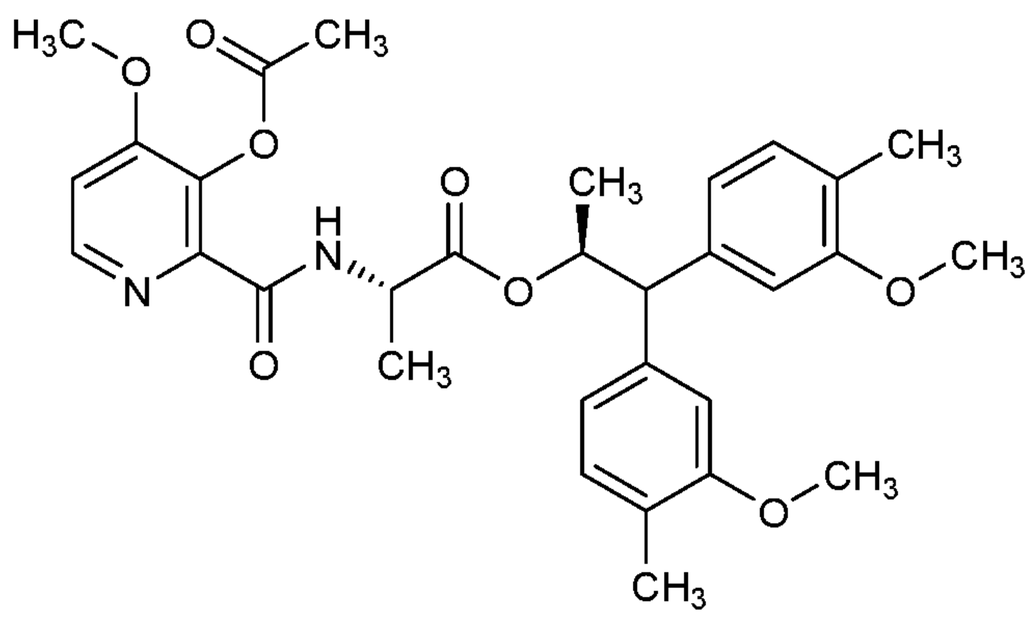
*Cmpd. No.	Structure	Prepared According To Example	Appearance
490		Example 6A.	White Wax
491		Example 6A.	White Foam
492		Example 6A.	White Foam

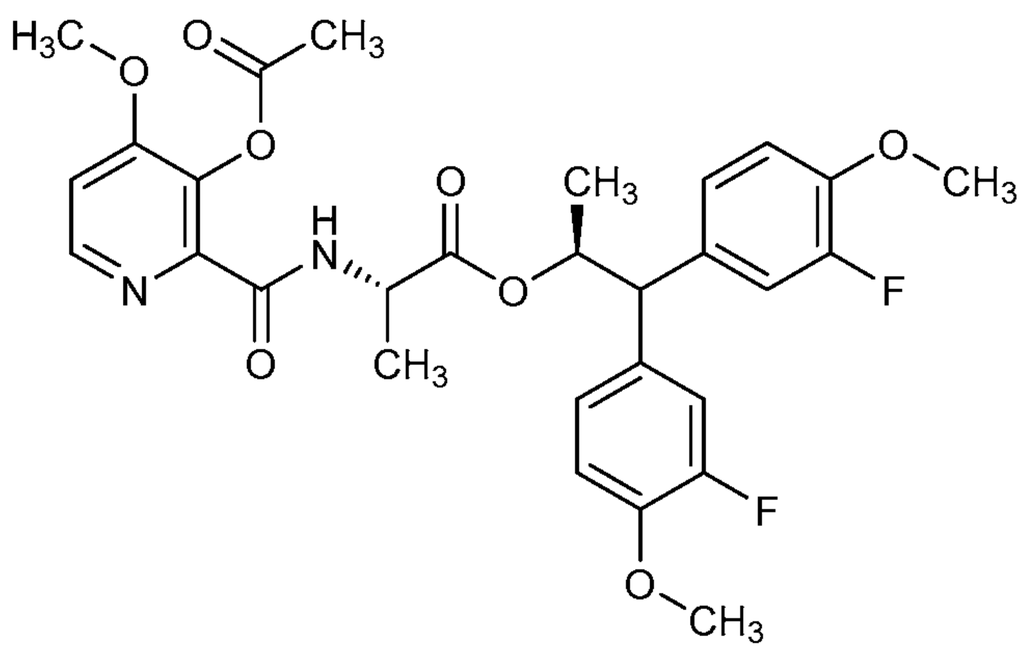
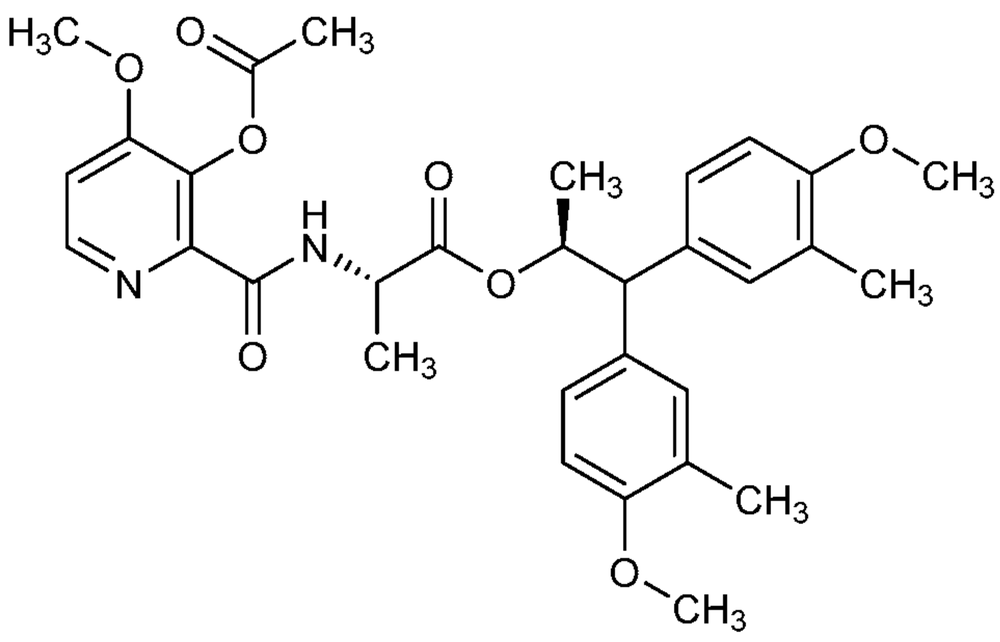
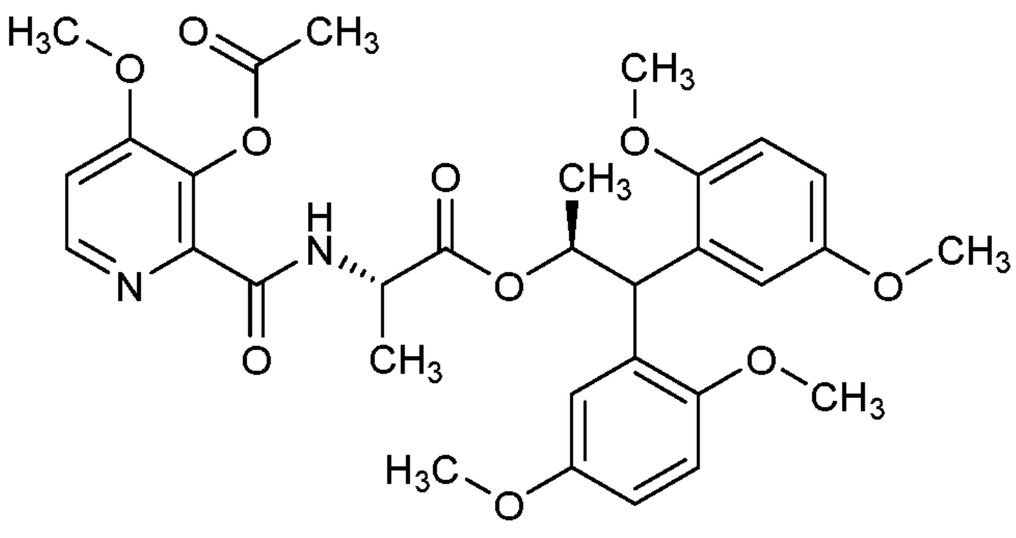
*Cmpd. No.	Structure	Prepared According To Example	Appearance
493		Example 6B	White Foam
494		Example 6C	White Foam
495		Example 6A	White Foam

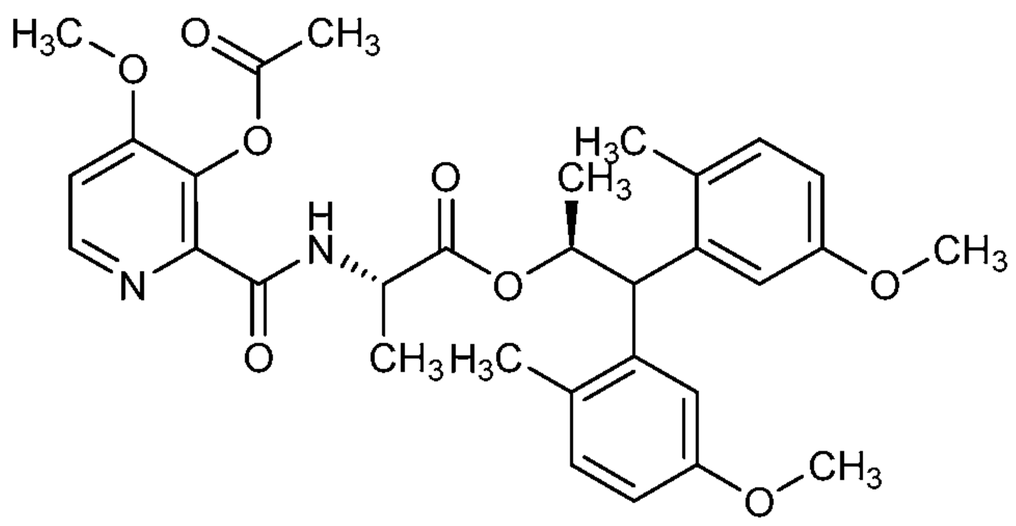
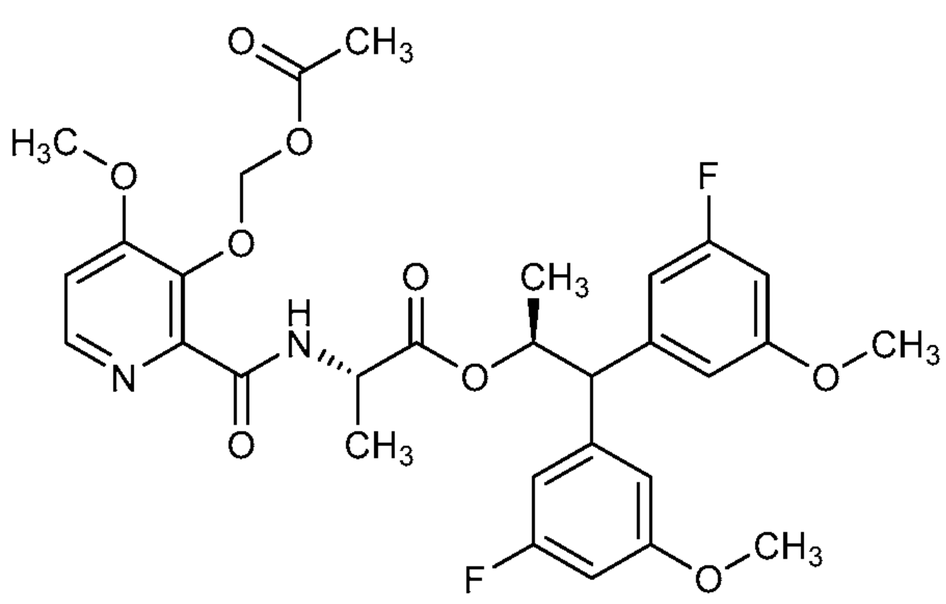
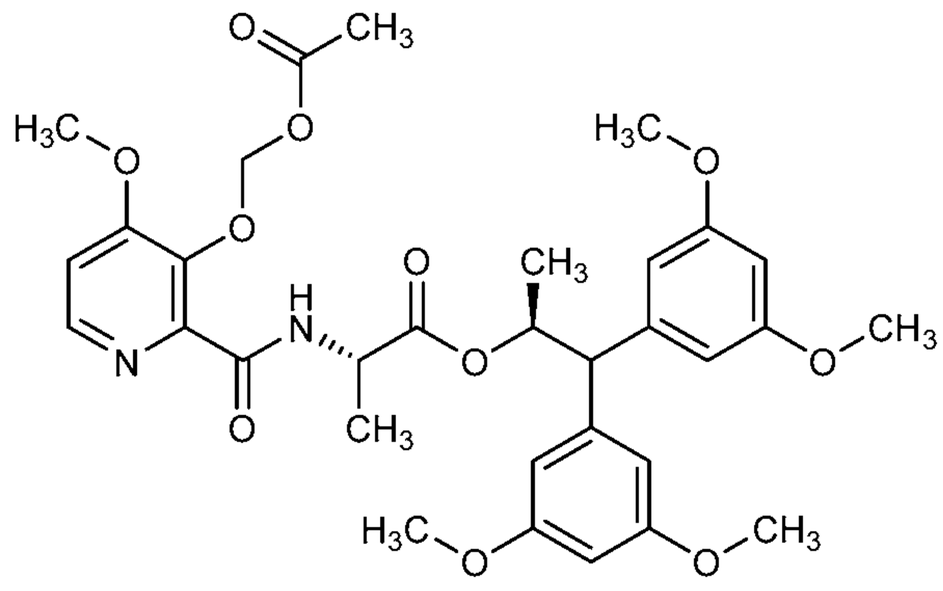
*Cmpd. No.	Structure	Prepared According To Example	Appearance
496		Example 6A	White Foam
497		Example 6A	Colorless Film
498		Example 6A.	White Foam

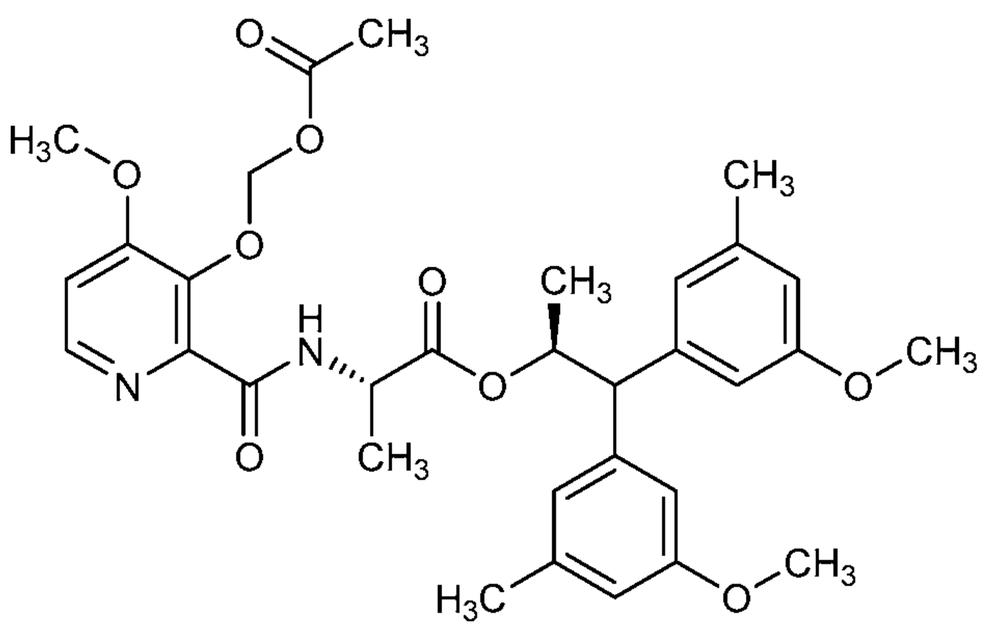
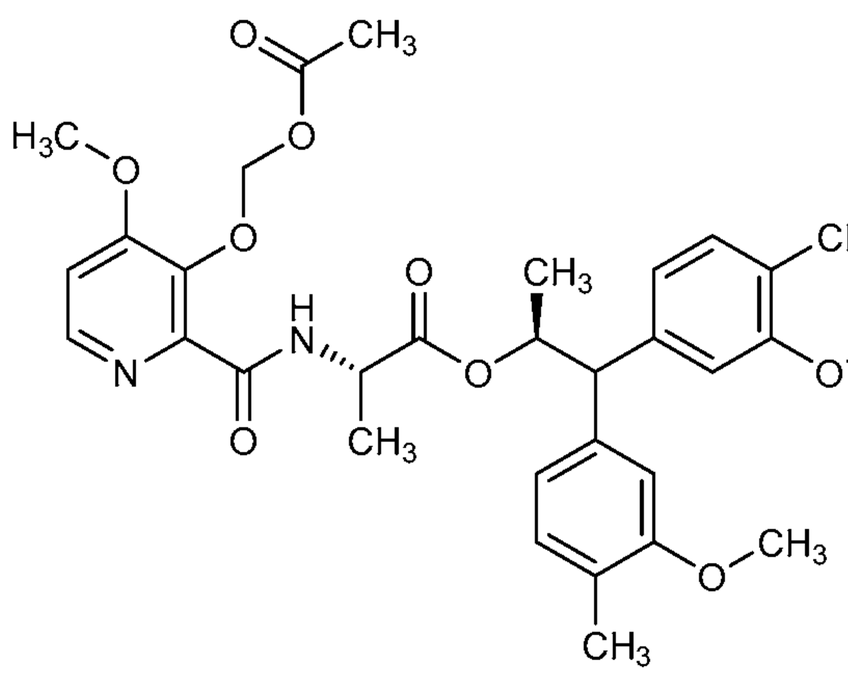
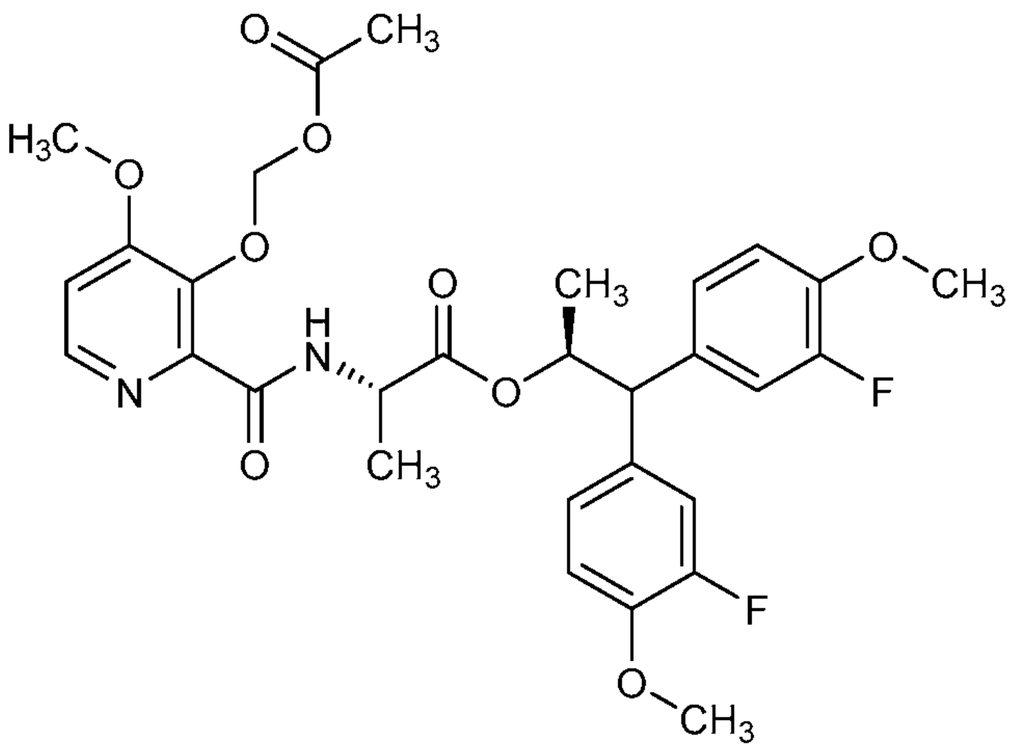
*Cmpd. No.	Structure	Prepared According To Example	Appearance
499		Example 6A.	White Foam
500		Example 6A.	White Foam
501		Example 6A.	White Foam
502		Example 6A.	White Foam

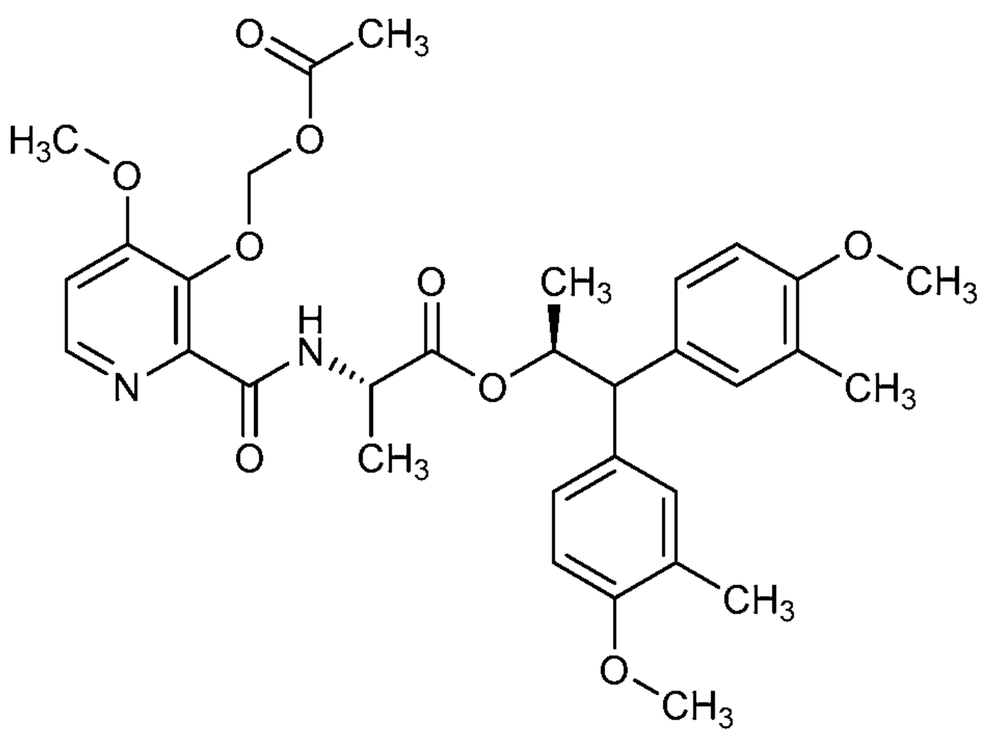
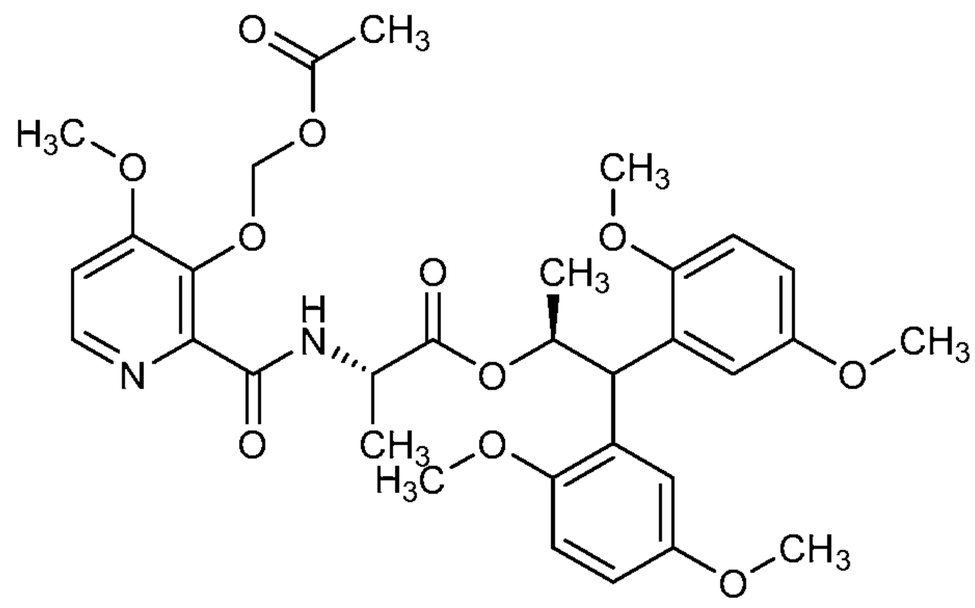
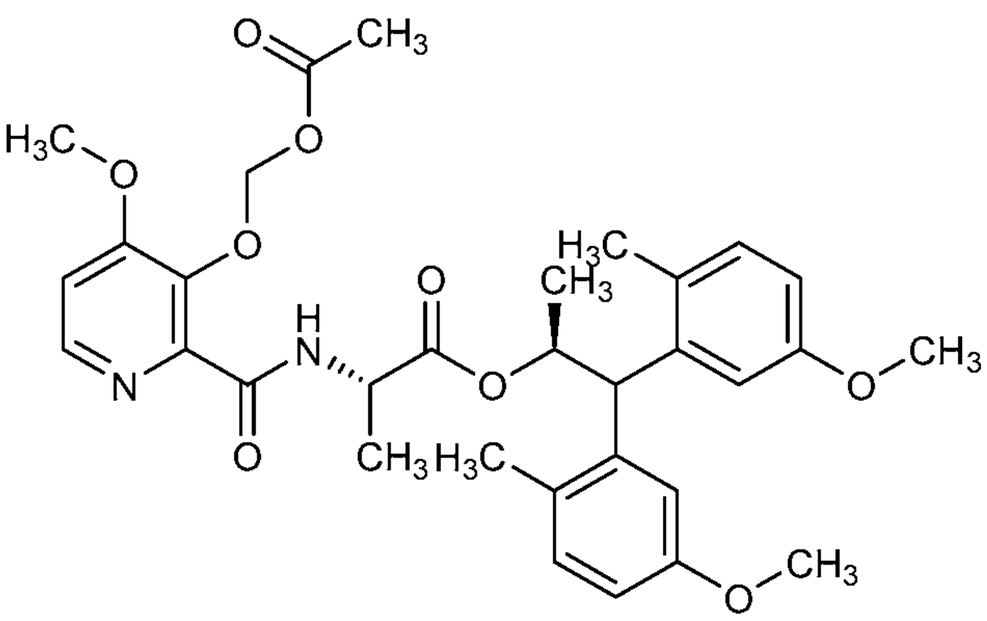
*Cmpd. No.	Structure	Prepared According To Example	Appearance
503		Example 6A.	White Foam
504		Example 6A.	White Foam
505		Example 6A.	Clear, Colorless Oil

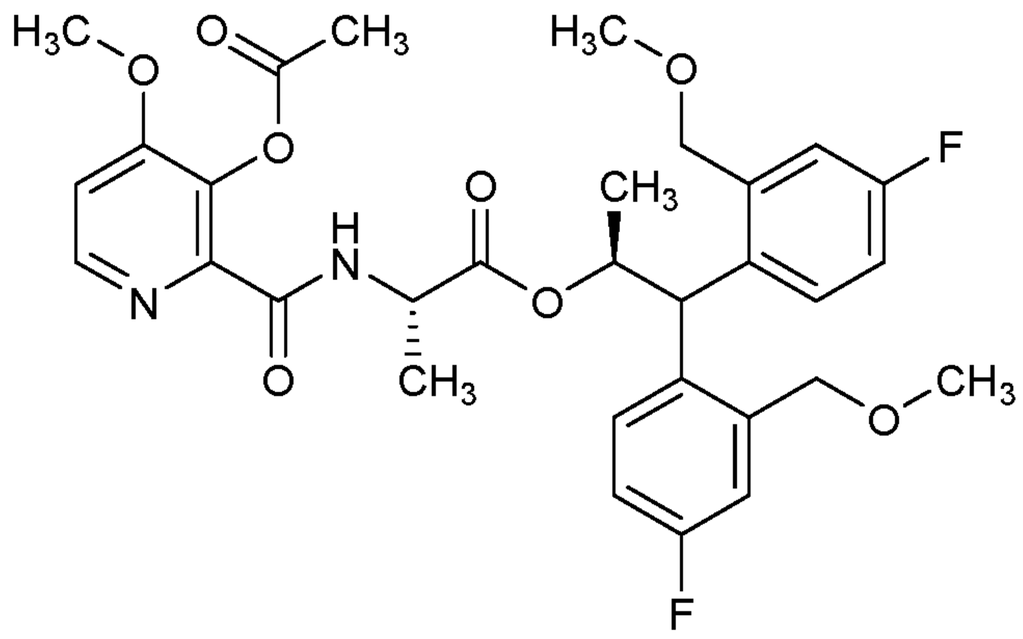
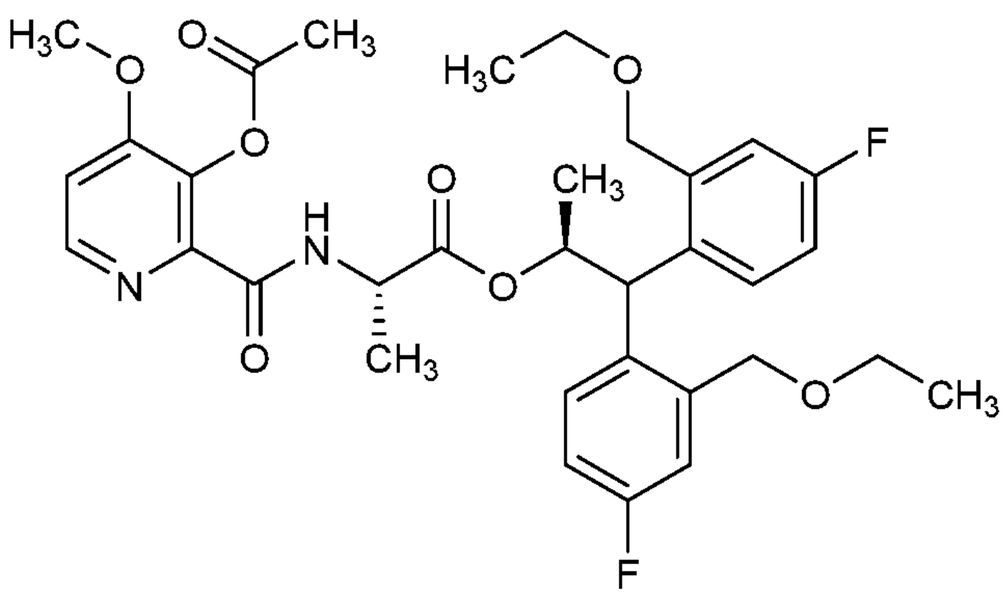
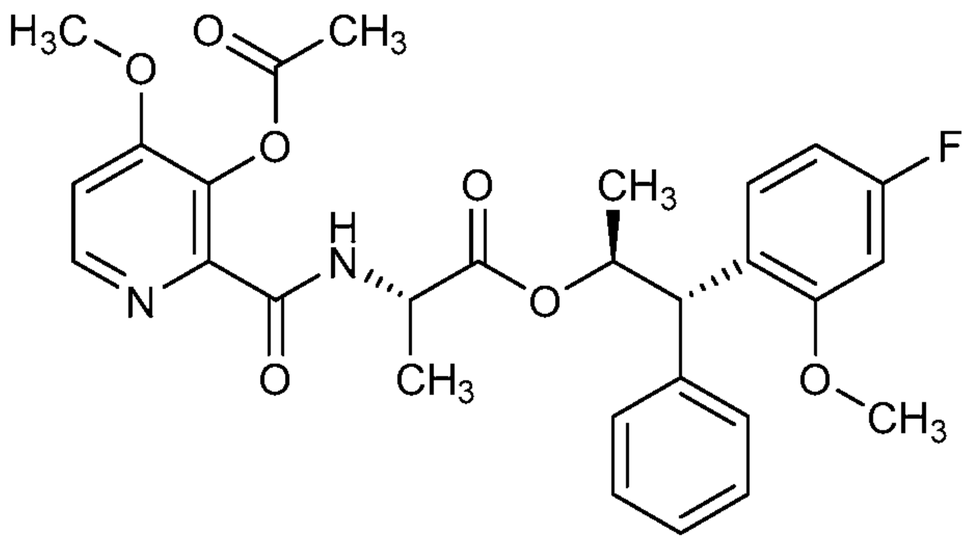
*Cmpd. No.	Structure	Prepared According To Example	Appearance
506		Example 6A.	Clear, Colorless Oil
507		Example 6A.	Clear, Colorless Oil
508		Example 6A.	Clear, Colorless Oil

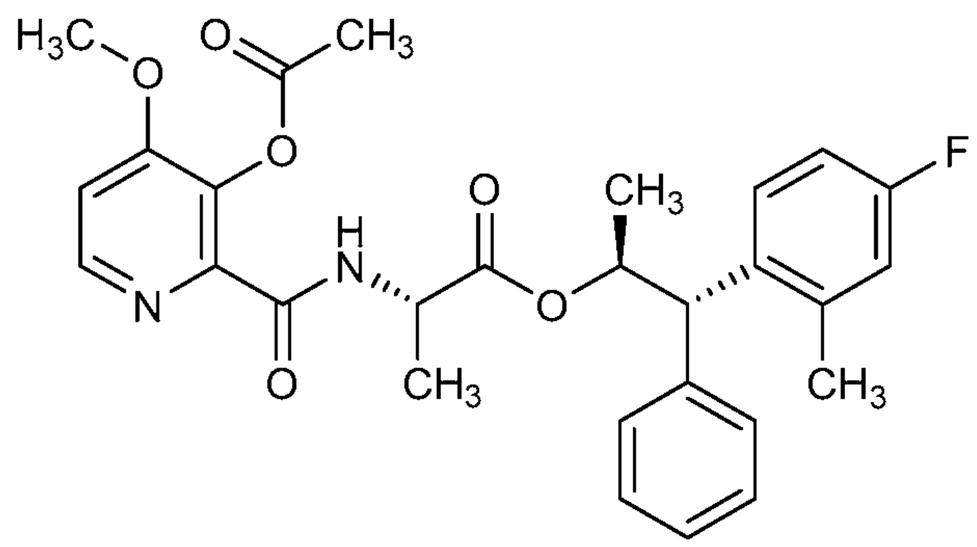
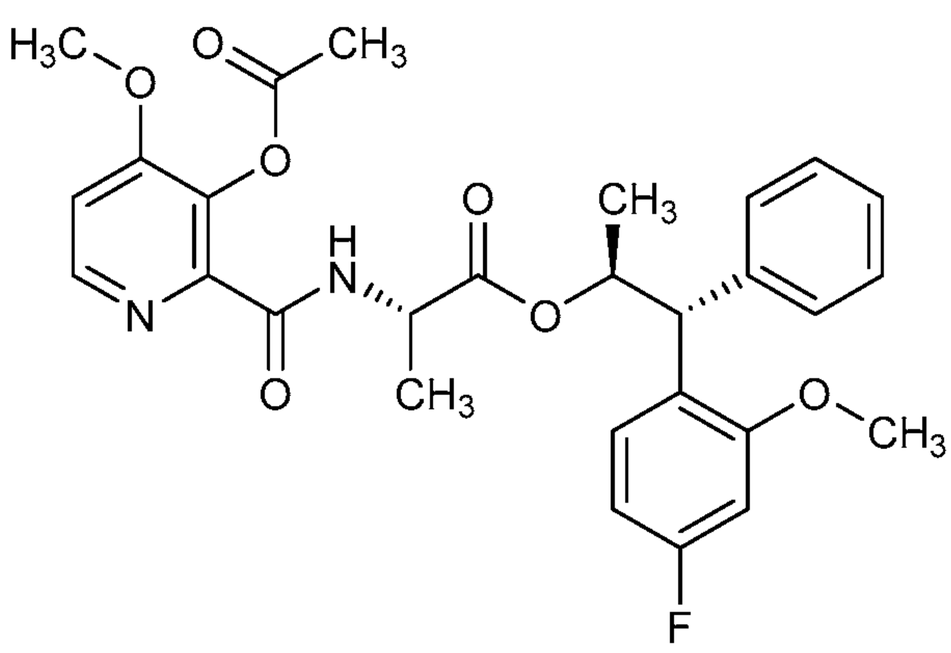
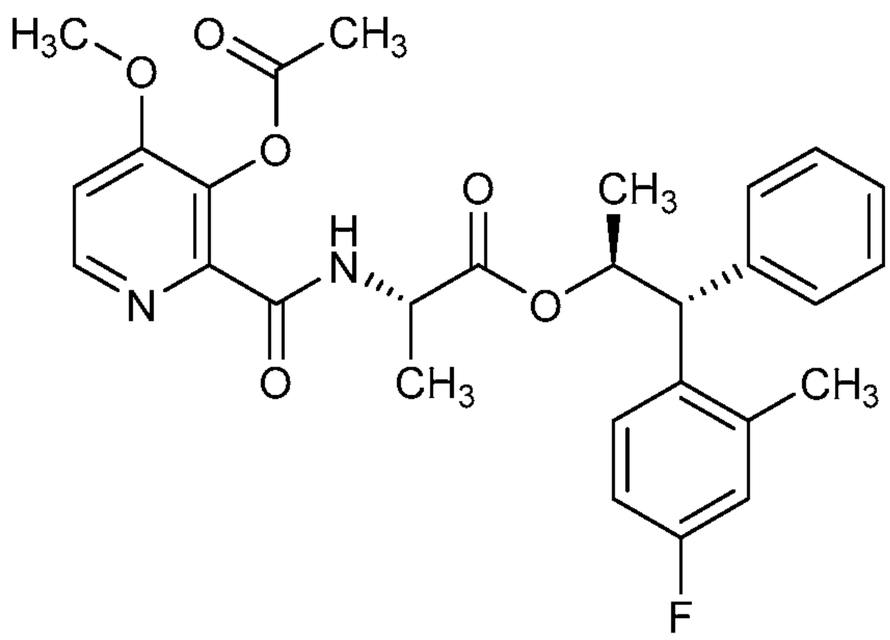
*Cmpd. No.	Structure	Prepared According To Example	Appearance
509		Example 6A.	Clear, Colorless Oil
510		Example 6A.	Clear, Colorless Oil
511		Example 6A.	Clear, Colorless Oil

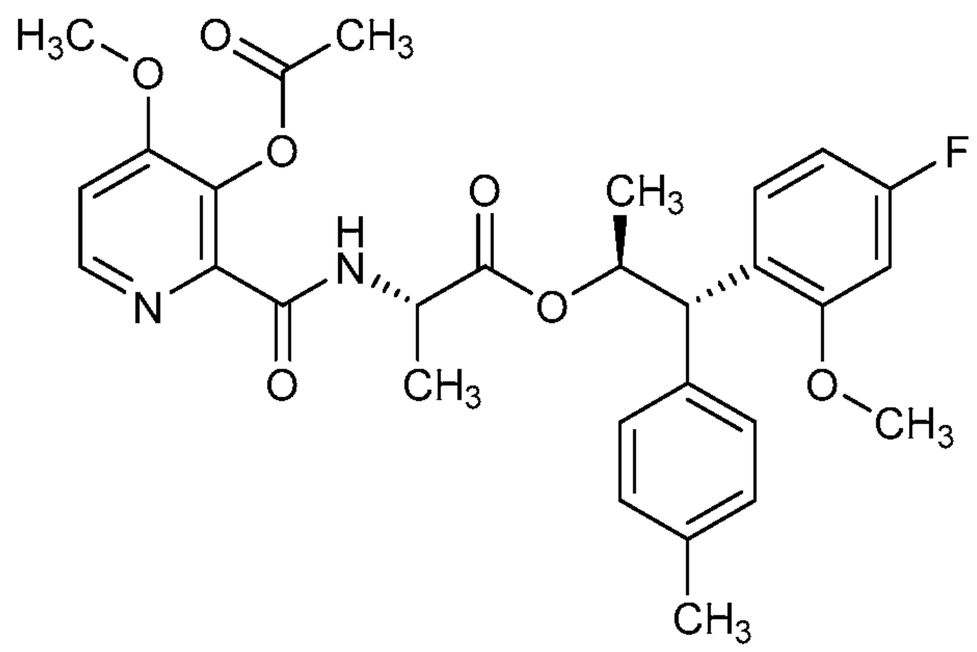
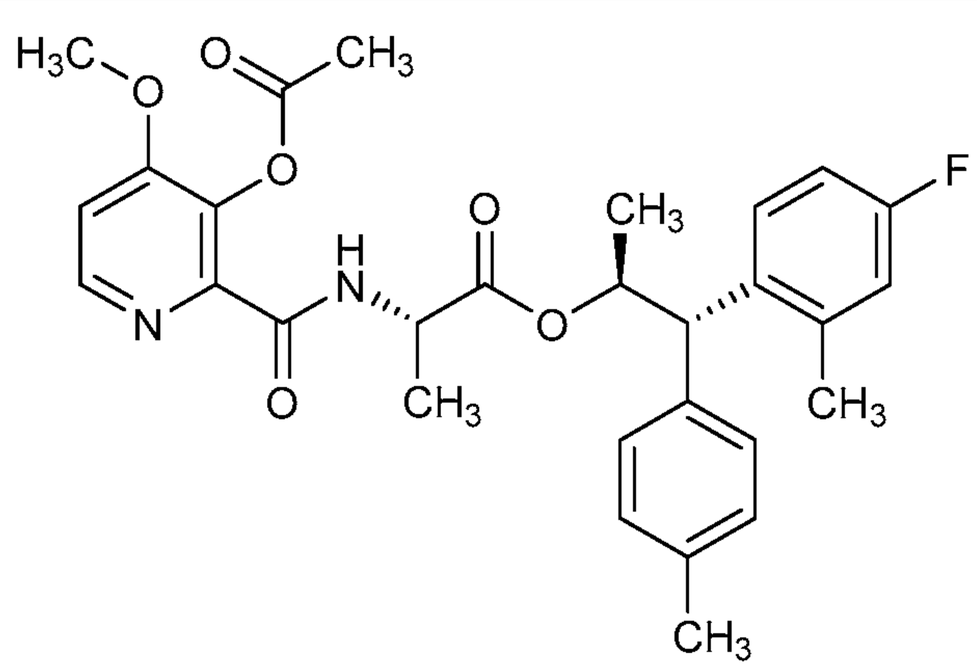
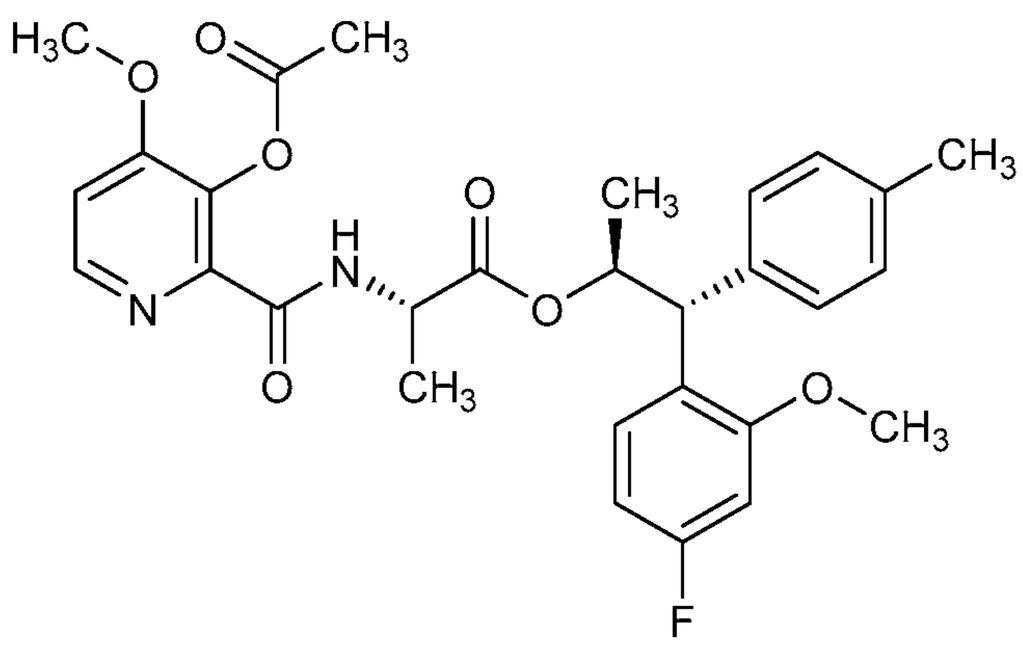
*Cmpd. No.	Structure	Prepared According To Example	Appearance
512		Example 6A.	Clear, Colorless Oil
513		Example 6B.	Clear, Colorless Oil
514		Example 6B.	Clear, Colorless Oil

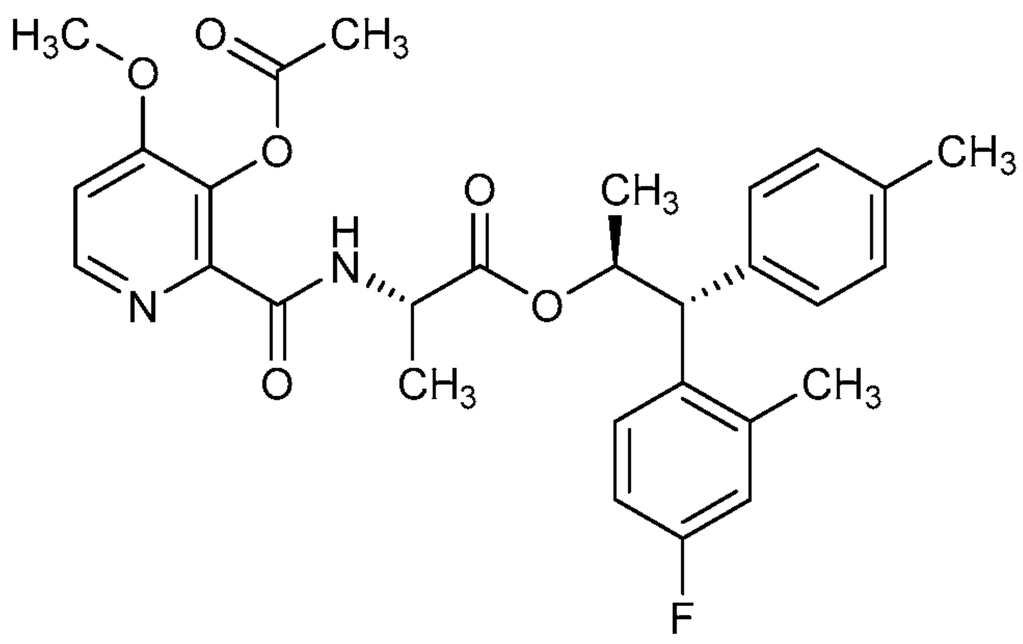
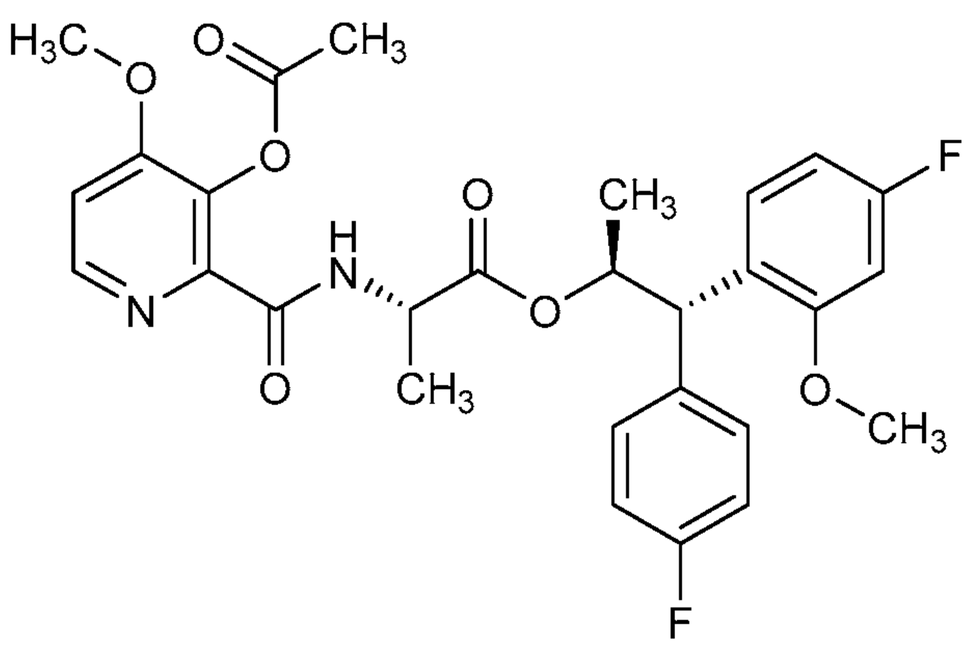
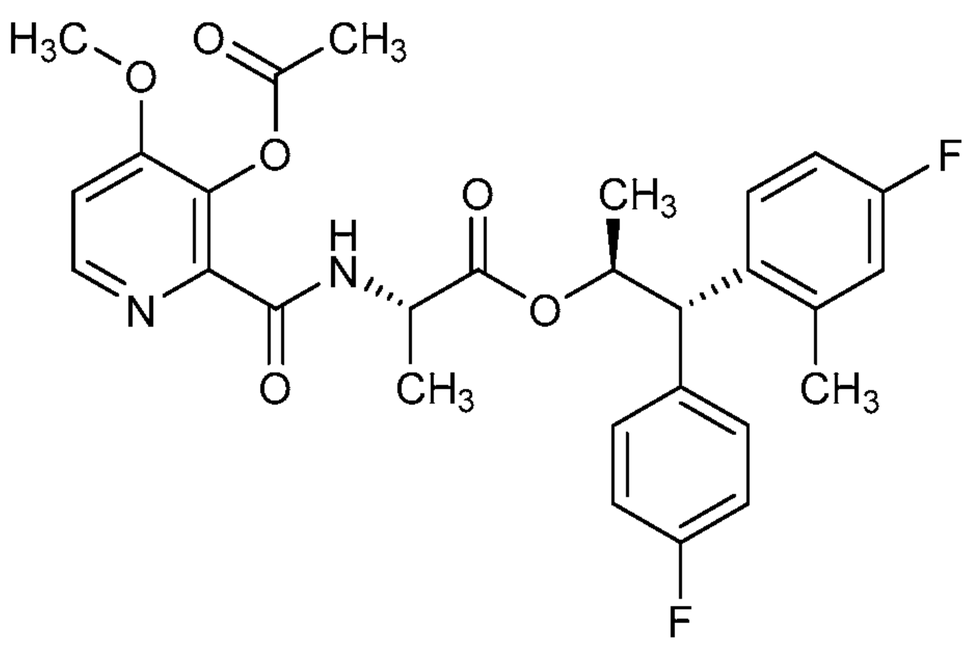
*Cmpd. No.	Structure	Prepared According To Example	Appearance
515		Example 6B.	Clear, Colorless Oil
516		Example 6B.	Clear, Colorless Oil
517		Example 6B.	Clear, Colorless Oil

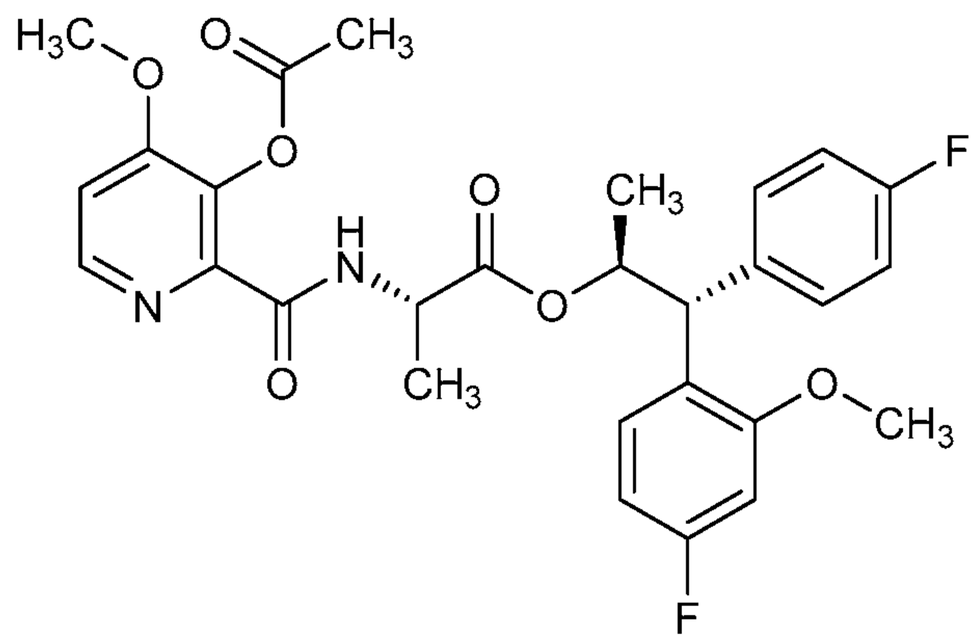
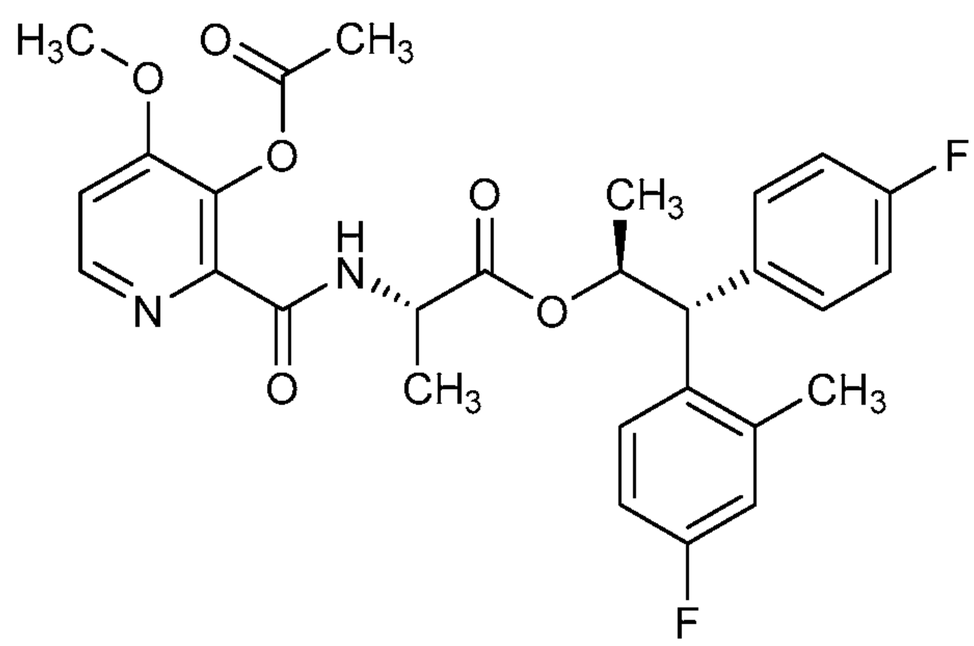
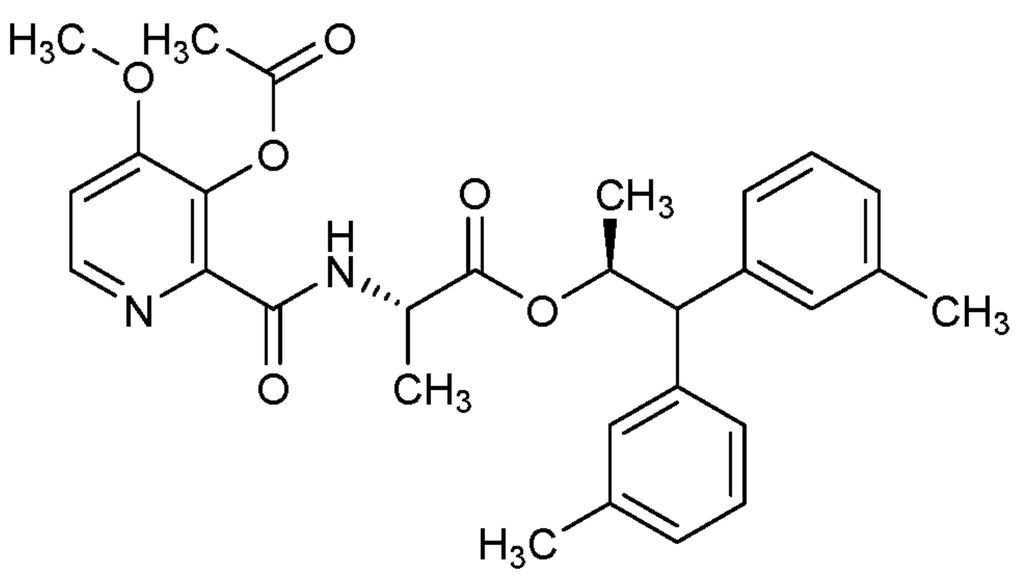
*Cmpd. No.	Structure	Prepared According To Example	Appearance
518		Example 6B.	Clear, Colorless Oil
519		Example 6B.	Clear, Colorless Oil
520		Example 6B.	Clear, Colorless Oil

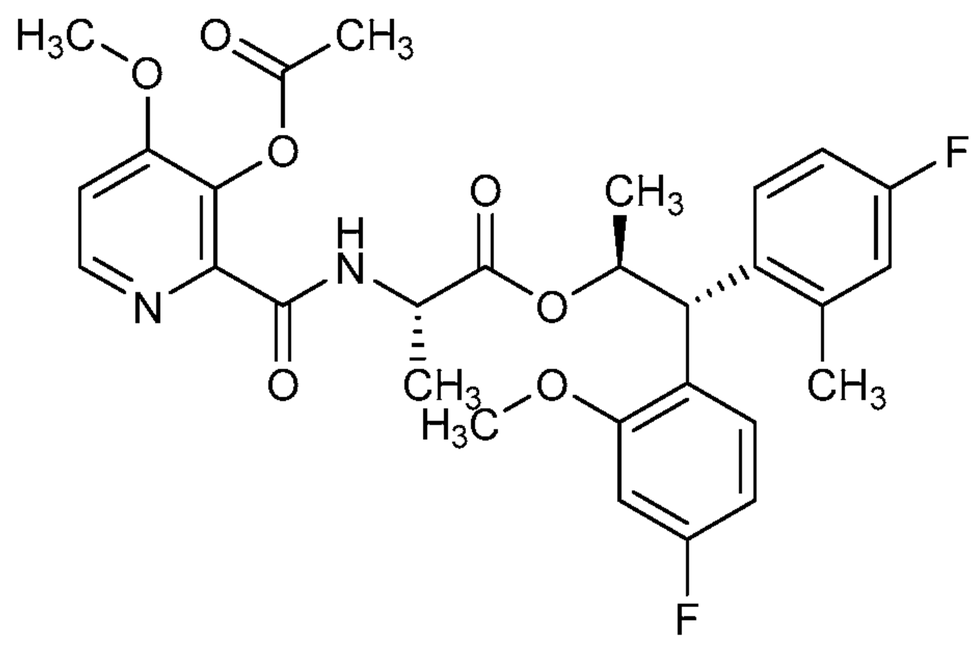
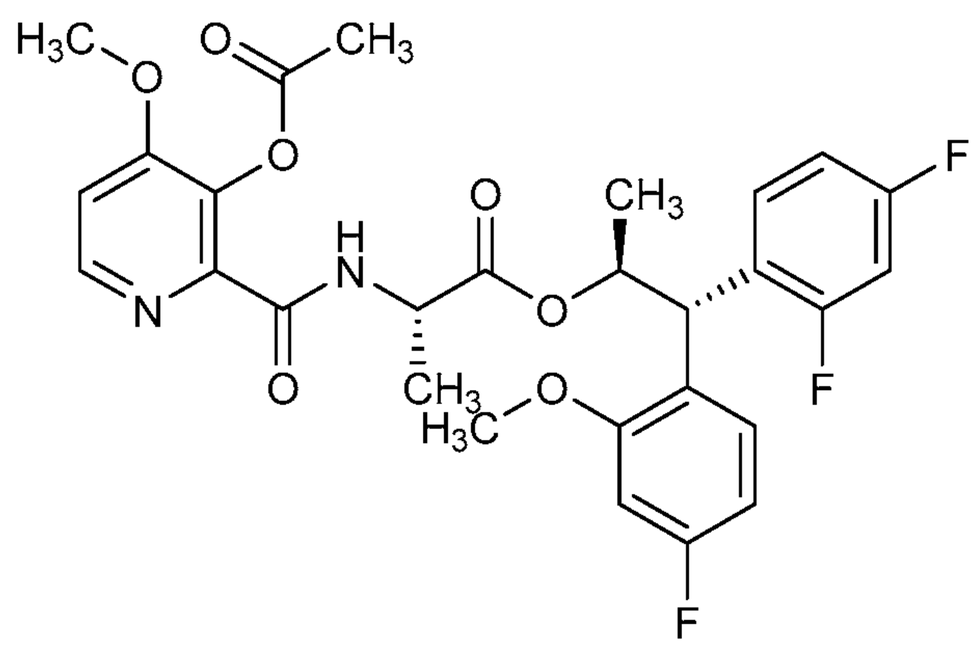
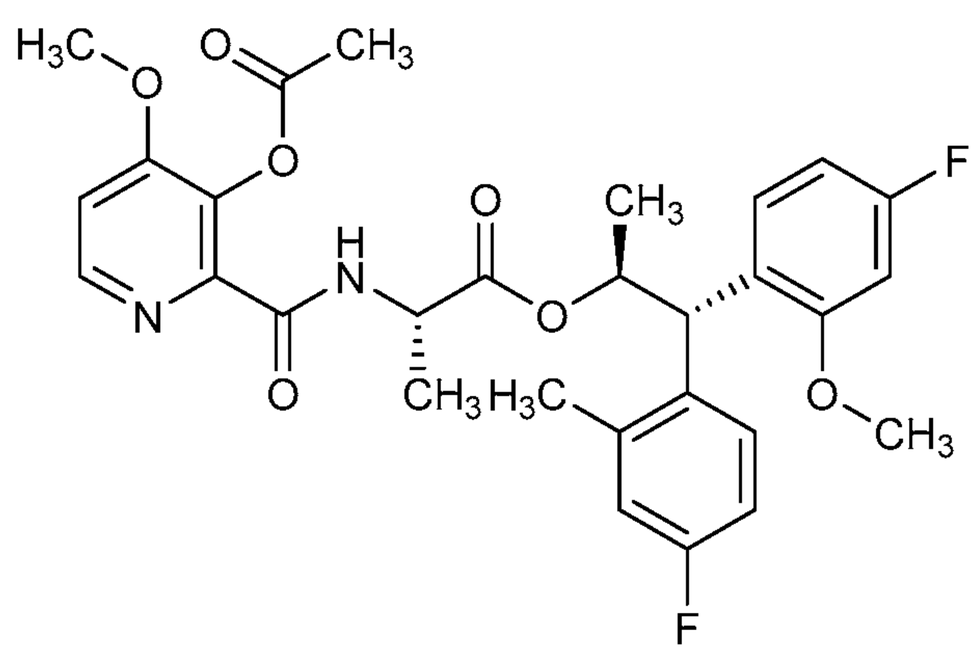
*Cmpd. No.	Structure	Prepared According To Example	Appearance
521		Example 6A.	White Foam.
522		Example 6A.	Sticky White Foam
523		Example 6A	Colorless Oil

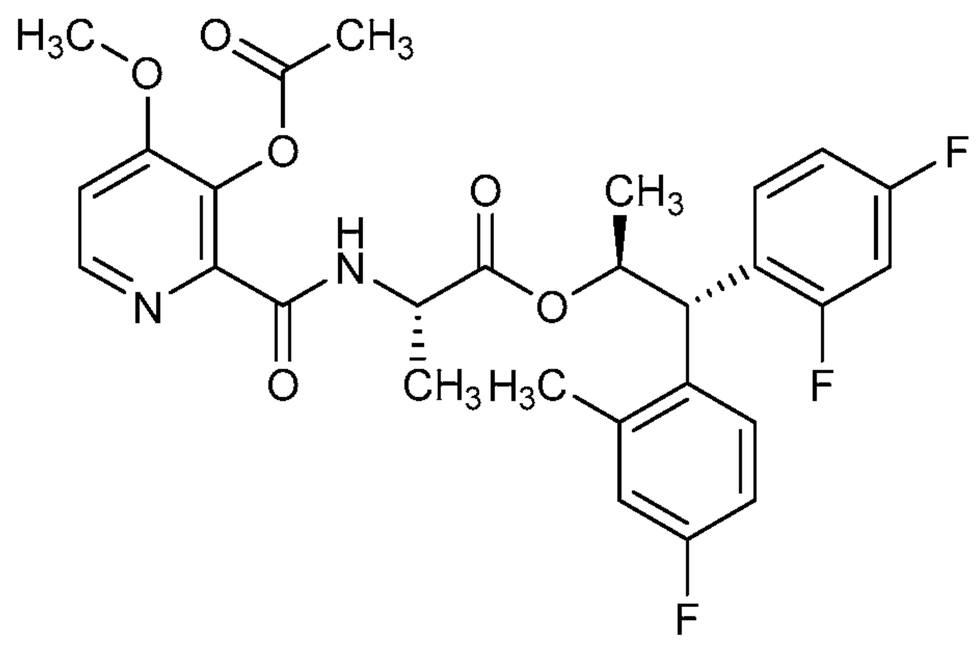
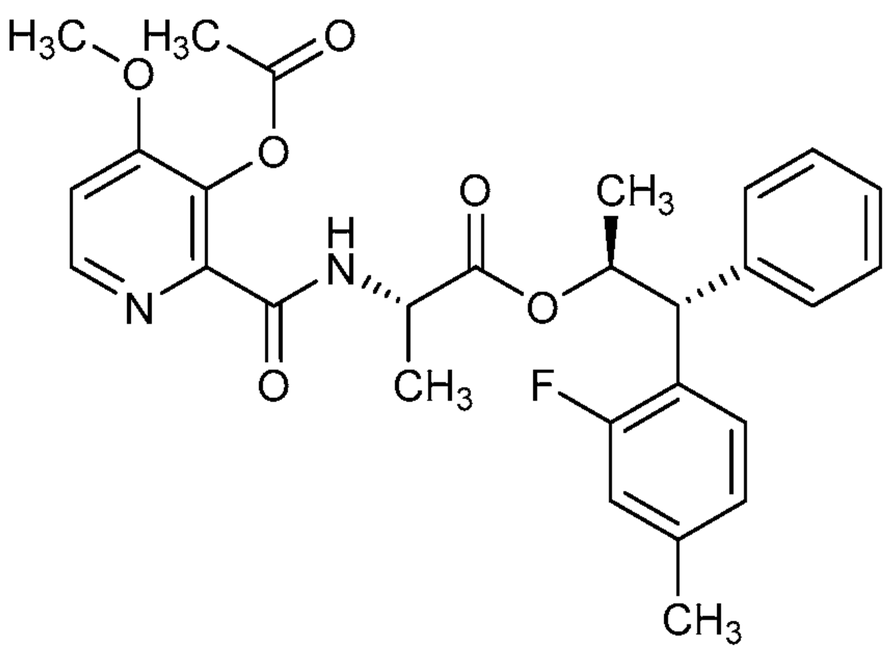
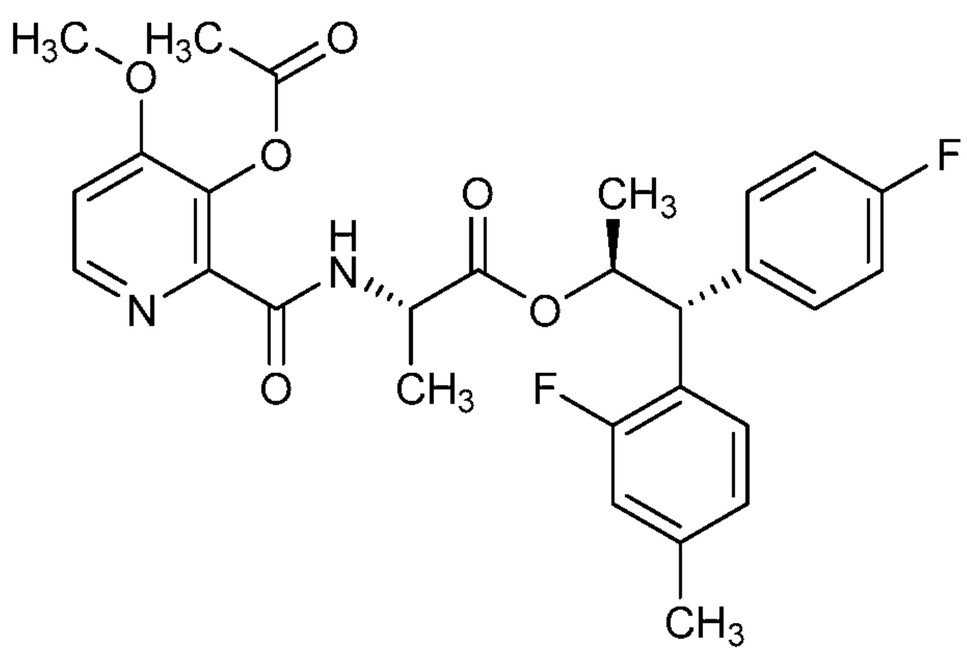
*Cmpd. No.	Structure	Prepared According To Example	Appearance
524		Example 6A	Colorless Oil
525		Example 6A	Colorless Oil
526		Example 6A	Colorless Oil

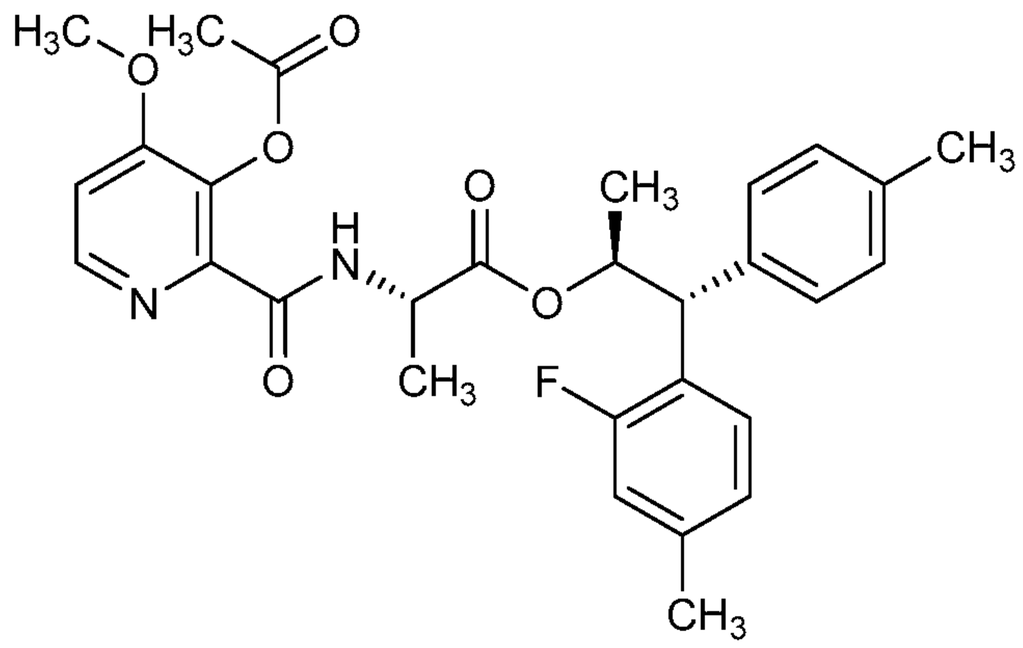
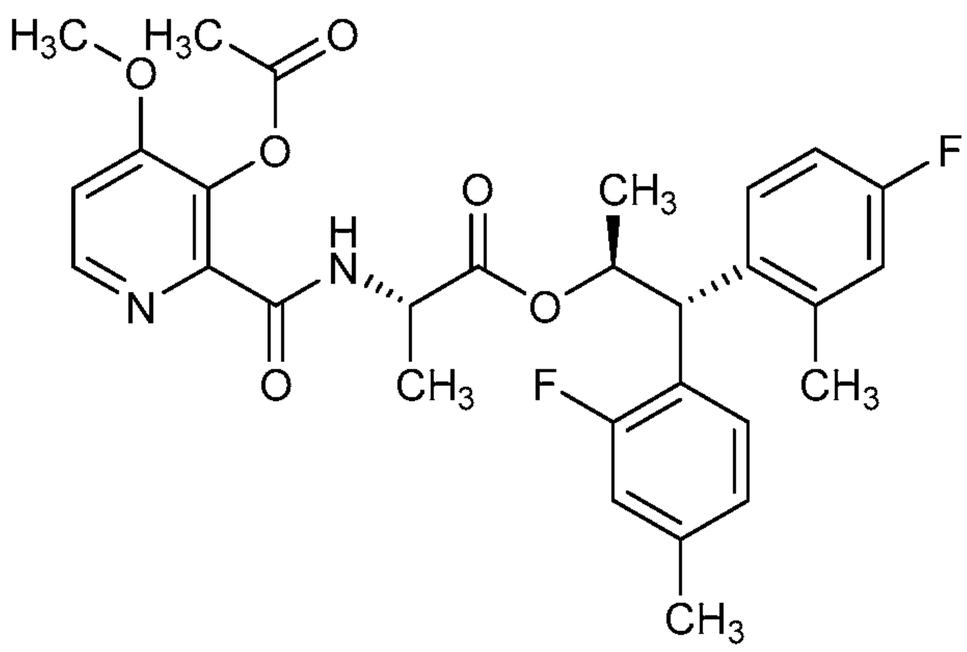
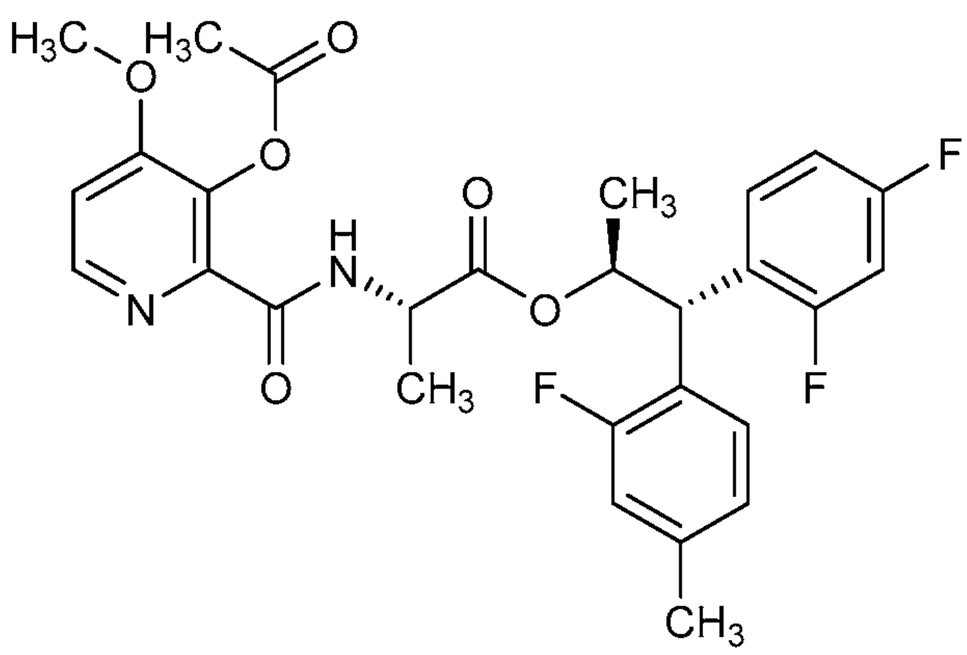
*Cmpd. No.	Structure	Prepared According To Example	Appearance
527		Example 6A	Colorless Foam
528		Example 6A	Colorless Foam
529		Example 6A	Colorless Foam

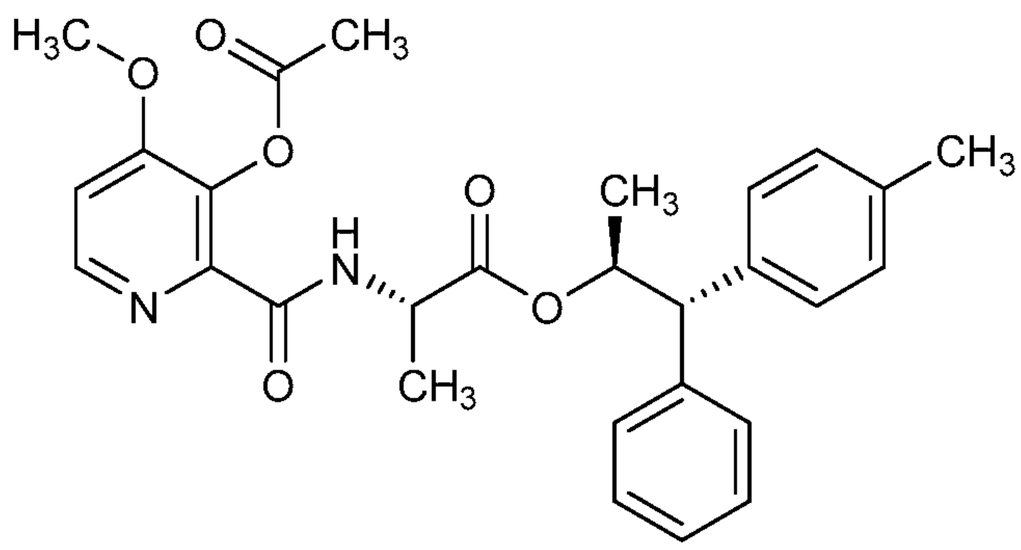
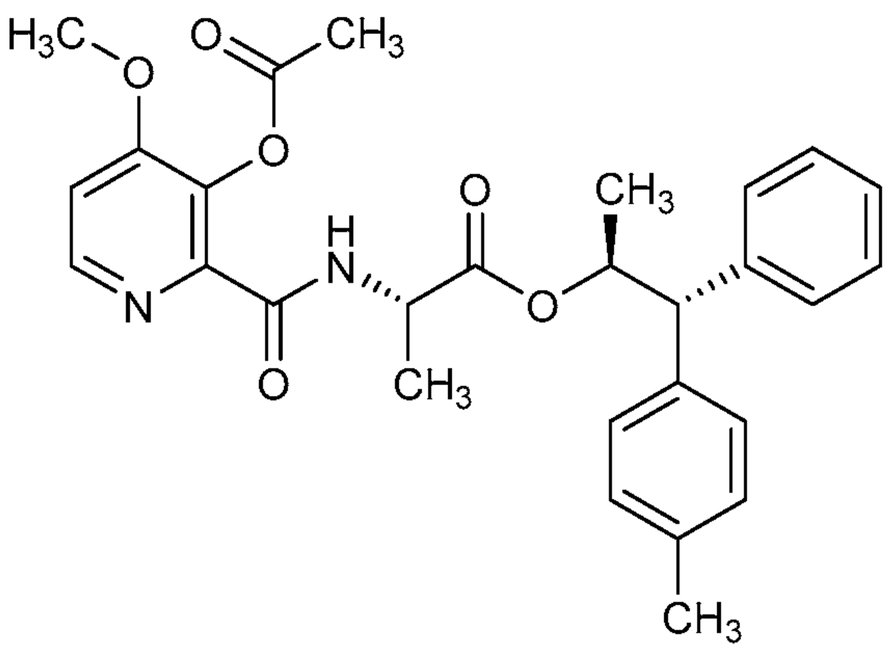
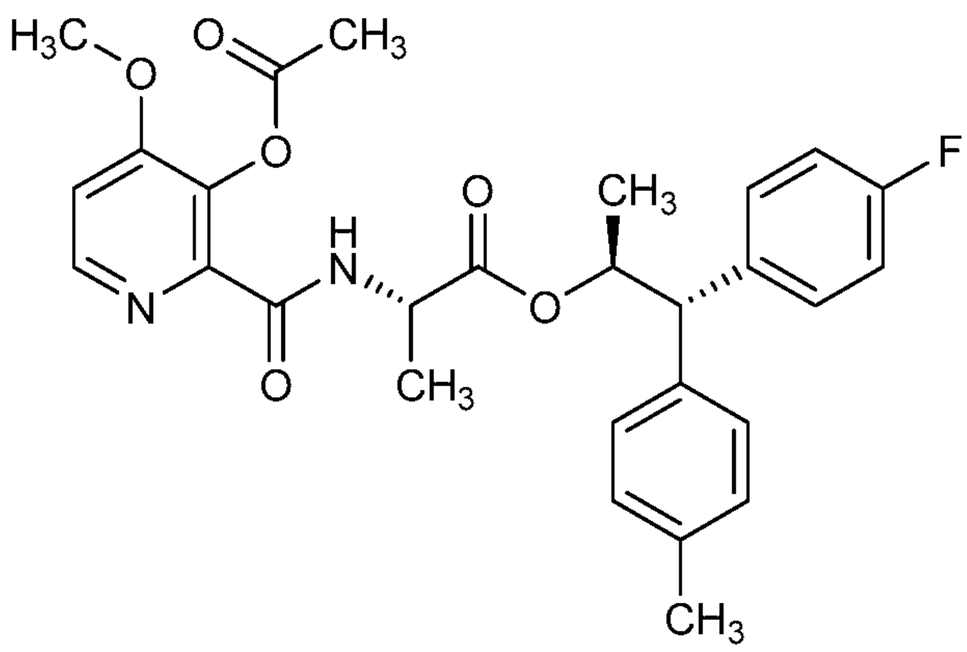
*Cmpd. No.	Structure	Prepared According To Example	Appearance
530		Example 6A	Colorless Foam
531		Example 6A	Colorless Oil
532		Example 6A	Colorless Oil

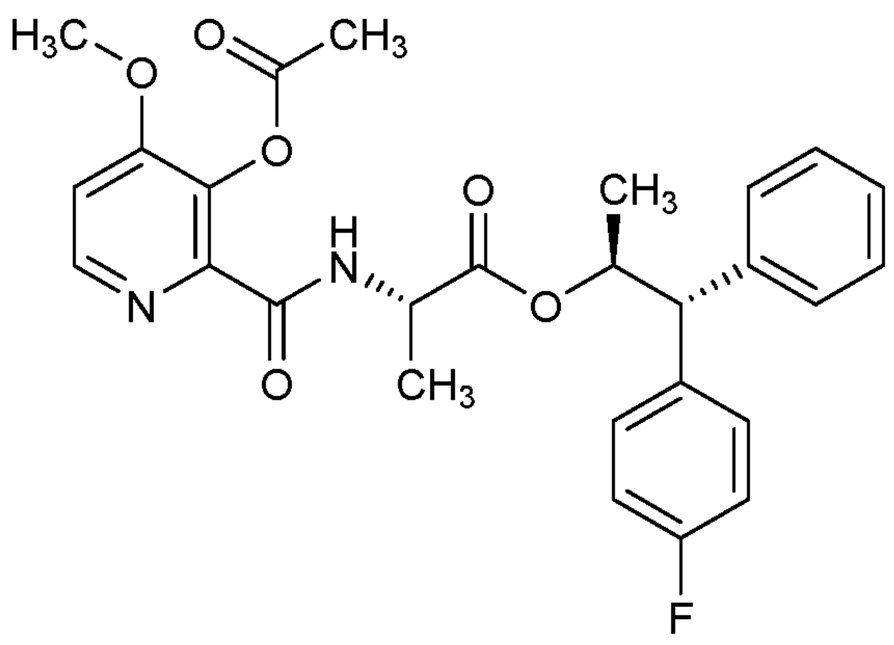
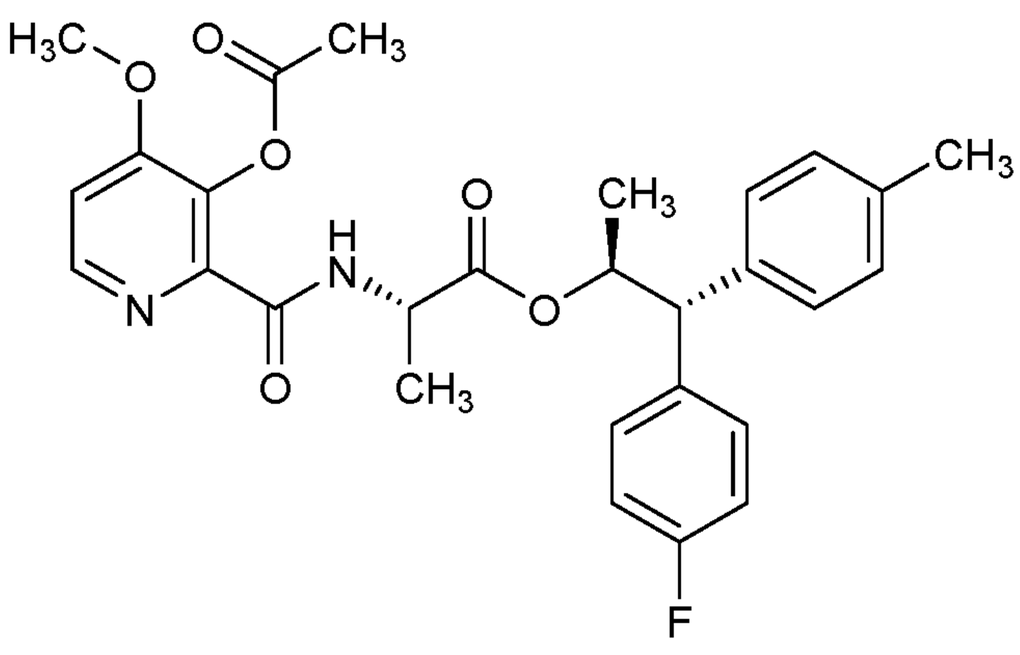
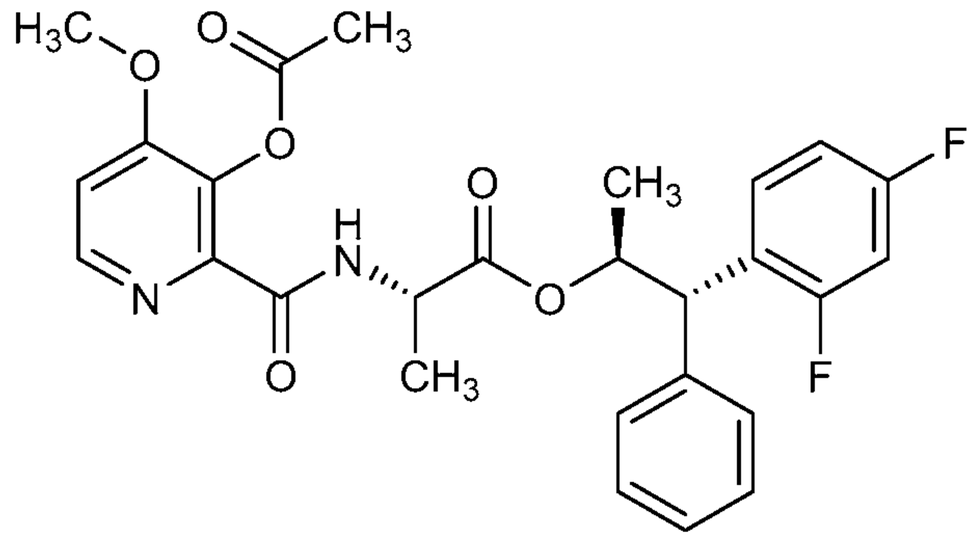
*Cmpd. No.	Structure	Prepared According To Example	Appearance
533		Example 6A	Colorless Oil
534		Example 6A	Colorless Oil
535		Example 6A.	White Foam

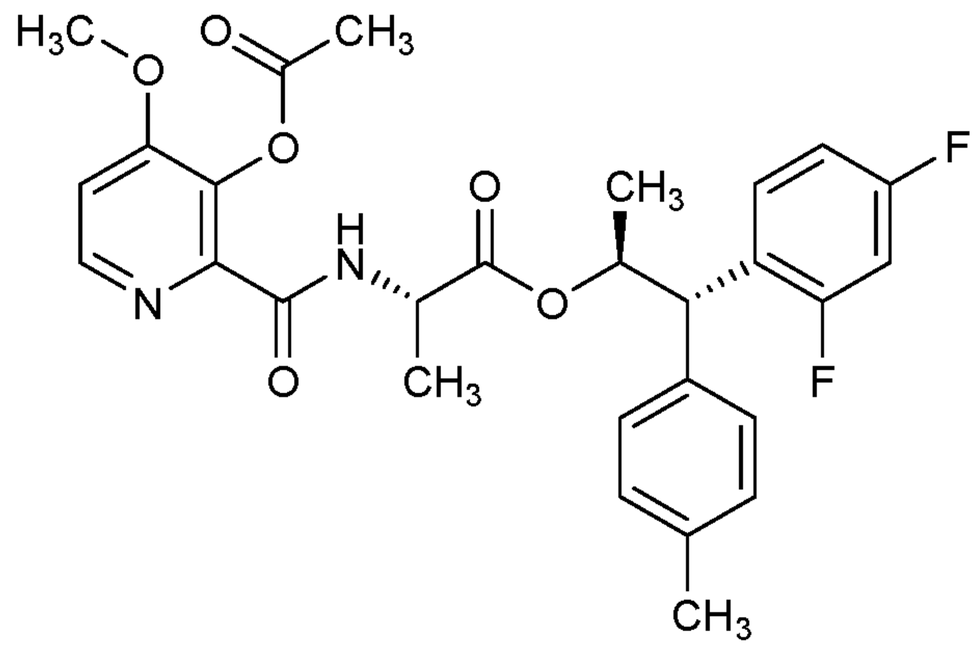
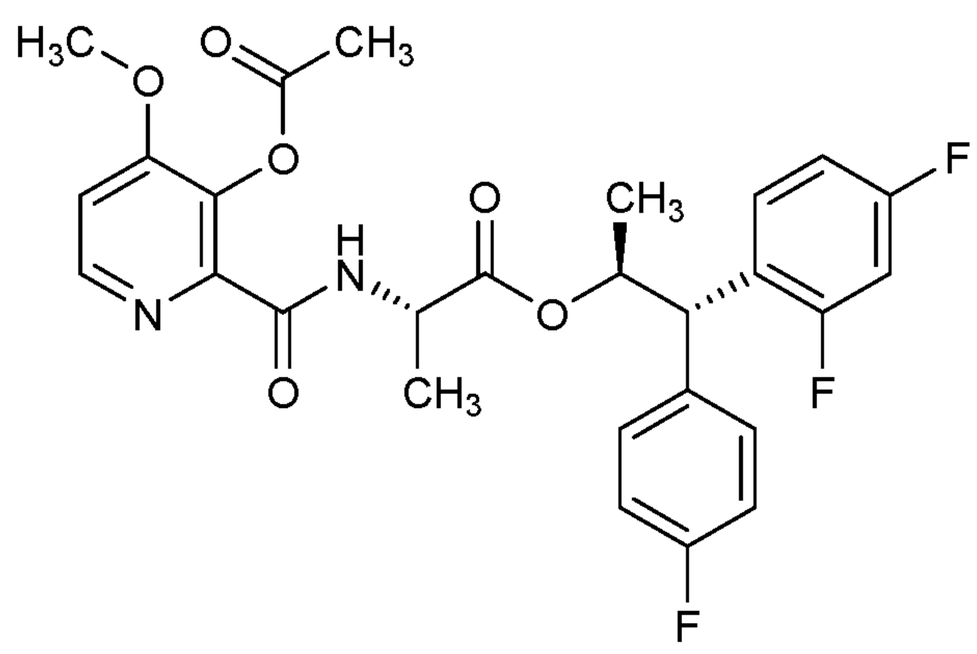
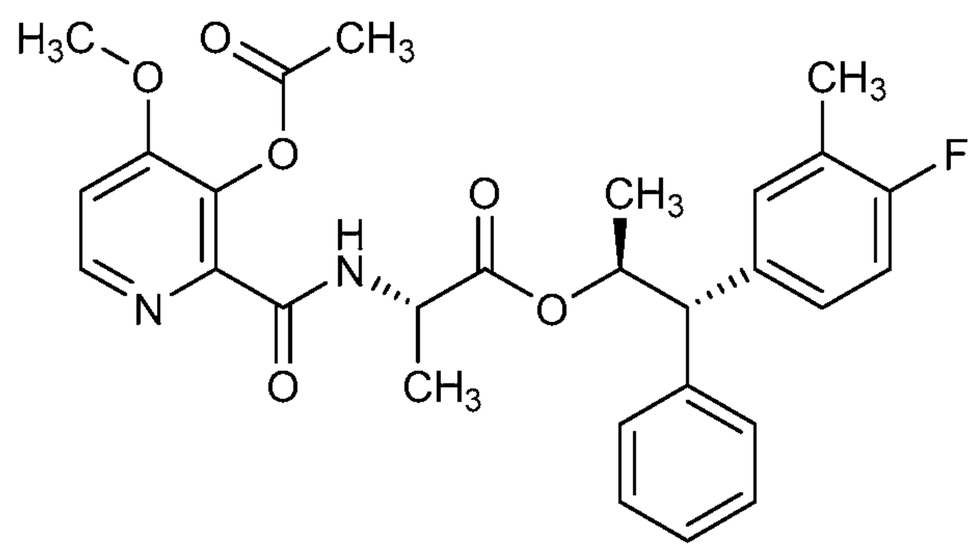
*Cmpd. No.	Structure	Prepared According To Example	Appearance
536		Example 6A.	White Foam
537		Example 6A.	White Foam
538		Example 6A.	White Foam

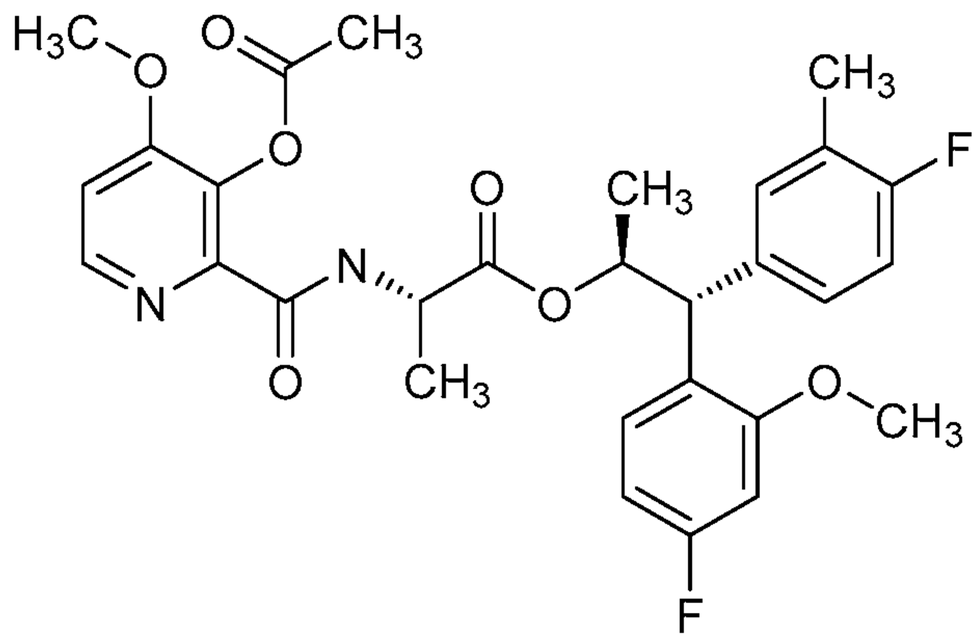
*Cmpd. No.	Structure	Prepared According To Example	Appearance
539		Example 6A.	White Foam
540		Example 6A.	White Foam
541		Example 6A.	White Foam

*Cmpd. No.	Structure	Prepared According To Example	Appearance
542		Example 6A.	White Foam
543		Example 6A.	White Foam
544		Example 6A.	White Foam

*Cmpd. No.	Structure	Prepared According To Example	Appearance
545		Example 6A.	White Foam
546		Example 6A.	White Foam
547		Example 6A.	White Foam

*Cmpd. No.	Structure	Prepared According To Example	Appearance
548		Example 6A.	White Foam
549		Example 6A.	White Foam
550		Example 6A.	White Foam

*Cmpd. No.	Structure	Prepared According To Example	Appearance
551		Example 6A.	White Foam
552		Example 6A.	White Foam
553		Example 6A	Colorless Foam

*Cmpd. No.	Structure	Prepared According To Example	Appearance
554		Example 6A	Colorless Foam

*Cmpd. No. – Compound Number

Table 2. Analytical Data

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
1	---	---	HRMS-ESI (*m/z*) $[M]^+$ calcd for $C_{23}H_{29}NO_5$, 399.2046; found, 399.2048	^{1}H NMR (500 MHz, $CDCl_3$) δ 7.53 – 7.41 (m, 4H), 7.32 – 7.23 (m, 4H), 7.23 – 7.13 (m, 2H), 6.01 (q, *J* = 6.3 Hz, 1H), 4.98 (d, *J* = 8.0 Hz, 1H), 4.13 (p, *J* = 7.1 Hz, 1H), 2.78 (s, 1H), 1.41 (s, 9H), 1.21 (d, *J* = 6.3 Hz, 3H), 0.83 (d, *J* = 7.3 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.55, 154.95, 145.04, 142.86, 128.32, 128.30, 127.17, 127.11, 125.59, 125.52, 79.83, 79.54, 75.16, 49.13, 28.29, 17.95, 14.38
2	---	---	ESIMS *m/z* 384.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.42 – 7.07 (m, 10H), 5.80 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.97 (d, *J* = 8.0 Hz, 1H), 4.19 – 4.06 (m, 1H), 4.03 (d, *J* = 10.1 Hz, 1H), 1.41 (s, 9H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.76 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.83, 154.96, 141.52, 141.26, 128.79, 128.50, 128.10, 128.08, 126.91, 126.67, 73.10, 57.98, 28.33, 19.31, 17.98
3	---	--	ESIMS *m/z* 396.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.22 – 7.15 (m, 2H), 7.00 (ddd, *J* = 3.5, 1.2, 0.6 Hz, 1H), 6.97 – 6.89 (m, 3H), 5.52 (dq, *J* = 7.3, 6.2 Hz, 1H), 4.99 (d, *J* = 5.1 Hz, 1H), 4.63 (d, *J* = 7.3 Hz, 1H), 4.29 – 4.18 (m, 1H), 1.43 (s, 9H), 1.28 (d, *J* = 6.2 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.64, 143.87, 142.87, 126.75, 126.55, 125.98, 125.39, 124.58, 124.56, 79.69, 74.40, 49.31, 47.46, 28.32, 18.74, 18.22

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
4	---	---	ESIMS *m/z* 420.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 – 7.16 (m, 4H), 6.97 (td, *J* = 8.7, 7.0 Hz, 4H), 5.71 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.95 (d, *J* = 8.0 Hz, 1H), 4.22 – 4.07 (m, 1H), 4.03 (d, *J* = 9.8 Hz, 1H), 1.42 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.84 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.53, -115.94
5	---	---	ESIMS *m/z* 450.6 ($[M+Na]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.37 – 7.19 (m, 10H), 6.01 – 5.89 (m, 1H), 5.02 (d, *J* = 7.9 Hz, 1H), 4.27 – 4.10 (m, 1H), 3.38 (dq, *J* = 8.9, 6.9 Hz, 1H), 3.25 – 3.13 (m, 1H), 1.40 (d, *J* = 2.1 Hz, 9H), 1.18 (t, *J* = 7.0 Hz, 3H), 1.15 – 1.06 (m, 6H)
6	---	---	ESIMS *m/z* 436.6 ($[M+Na]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.38 – 7.21 (m, 10H), 6.01 – 5.82 (m, 1H), 5.01 (d, *J* = 8.0 Hz, 1H), 4.27 – 4.12 (m, 1H), 3.15 (s, 3H), 1.40 (s, 9H), 1.15 – 1.07 (m, 6H)
7	---	---	ESIMS *m/z* 456.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.36 (td, *J* = 8.5, 6.1 Hz, 1H), 7.26 – 7.15 (m, 1H), 6.91 – 6.68 (m, 4H), 5.86 – 5.73 (m, 1H), 4.92 (d, *J* = 8.0 Hz, 1H), 4.66 (d, *J* = 10.1 Hz, 1H), 4.23 – 4.09 (m, 1H), 1.42 (s, 9H), 1.27 (d, *J* = 6.1 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -111.06 (d, *J* = 7.6 Hz), -111.55 (d, *J* = 7.5 Hz), -111.91 (dd, *J* = 7.9, 2.7 Hz), -112.72 (d, *J* = 5.9 Hz)
8	---	---	ESIMS *m/z* 424.5 ($[M+Na]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.48 – 7.41 (m, 4H), 7.38 – 7.19 (m, 6H), 5.97 (dq, *J* = 25.6, 6.5 Hz, 1H), 4.90 (d, *J* = 7.8 Hz, 1H), 4.23 – 4.05 (m, 1H), 1.41 (s, 9H), 1.29 (dd, *J* = 6.5, 1.0 Hz, 3H), 0.75 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -169.03

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
9	---	---	ESIMS *m/z* 444.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.22 – 7.09 (m, 4H), 6.91 – 6.65 (m, 4H), 5.70 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.94 (d, *J* = 8.0 Hz, 1H), 4.19 – 4.05 (m, 1H), 3.93 (d, *J* = 9.8 Hz, 1H), 3.76 (s, 3H), 3.74 (s, 3H), 1.42 (s, 9H), 1.21 (d, *J* = 6.2 Hz, 3H), 0.83 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.84, 158.34, 158.22, 133.99, 133.81, 128.96, 114.10, 113.84, 79.64, 73.33, 56.17, 55.22, 49.22, 28.31, 19.28, 18.19
10	---	---	ESIMS *m/z* 420.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 – 7.21 (m, 2H), 7.14 – 7.02 (m, 2H), 7.03 – 6.84 (m, 4H), 5.72 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.93 (d, *J* = 8.0 Hz, 1H), 4.22 – 4.07 (m, 1H), 4.03 (d, *J* = 9.8 Hz, 1H), 1.42 (s, 9H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.84 (d, *J* = 7.1 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.14, -112.59
11	---	---	ESIMS *m/z* 452.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 – 7.11 (m, 8H), 5.71 (dq, *J* = 10.0, 5.9 Hz, 1H), 4.94 (d, *J* = 8.0 Hz, 1H), 4.18 – 4.07 (m, 1H), 3.99 (d, *J* = 9.9 Hz, 1H), 1.42 (d, *J* = 1.7 Hz, 9H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.87 – 0.81 (m, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.79, 154.94, 142.68, 142.43, 134.73, 134.43, 130.21, 129.93, 128.39, 128.32, 127.49, 127.18, 126.28, 126.20, 79.79, 72.40, 57.09, 49.15, 28.30, 19.21, 18.04
12	---	---	ESIMS *m/z* 382.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.79 – 7.72 (m, 2H), 7.72 – 7.62 (m, 1H), 7.59 – 7.48 (m, 1H), 7.46 – 7.36 (m, 2H), 7.36 – 7.25 (m, 2H), 5.81 – 5.64 (m, 1H), 5.09 (s, 1H), 4.55 – 4.34 (m, 1H), 4.33 – 4.18 (m, 1H), 1.46 (s, 9H), 1.45 (d, *J* = 3.5 Hz, 3H), 0.70 (d, *J* = 6.3 Hz, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
13	---	---	ESIMS *m/z* 398.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 – 7.21 (m, 4H), 7.15 – 7.04 (m, 4H), 5.15 – 5.03 (m, 1H), 5.01 (d, *J* = 8.0 Hz, 1H), 4.35 – 4.24 (m, 1H), 4.27 – 4.15 (m, 1H), 1.44 (s, 9H), 1.29 (d, *J* = 7.2 Hz, 3H), 1.03 (d, *J* = 6.4 Hz, 3H)
14	---	---	ESIMS *m/z* 542.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.46 – 7.36 (m, 4H), 7.17 – 7.07 (m, 4H), 5.71 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.91 (d, *J* = 7.9 Hz, 1H), 4.13 (p, *J* = 7.2 Hz, 1H), 3.97 (d, *J* = 9.8 Hz, 1H), 1.42 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.86 (d, *J* = 7.2 Hz, 3H)
15	---	---	ESIMS *m/z* 424.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 6.73 (d, *J* = 3.4 Hz, 1H), 6.67 (d, *J* = 3.4 Hz, 1H), 6.59 – 6.46 (m, 2H), 5.43 (dq, *J* = 7.4, 6.2 Hz, 1H), 5.03 (d, *J* = 8.1 Hz, 1H), 4.42 (d, *J* = 7.3 Hz, 1H), 4.24 (p, *J* = 7.1, 6.7 Hz, 1H), 2.41 (d, *J* = 1.1 Hz, 3H), 2.40 (d, *J* = 1.1 Hz, 3H), 1.43 (s, 9H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.09 (d, *J* = 7.1 Hz, 3H)
16	---	---	ESIMS *m/z* 412.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.18 – 7.11 (m, 4H), 7.11 – 7.02 (m, 4H), 5.75 (dq, *J* = 10.2, 6.2 Hz, 1H), 4.95 (d, *J* = 8.0 Hz, 1H), 4.11 (p, *J* = 7.4, 6.5 Hz, 1H), 3.95 (d, *J* = 10.0 Hz, 1H), 2.27 (s, 3H), 2.25 (s, 3H), 1.41 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.80 (d, *J* = 7.2 Hz, 3H)
18	---	---	ESIMS *m/z* 452.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.55 (d, *J* = 8.1 Hz, 2H), 7.41 (d, *J* = 8.0 Hz, 2H), 7.31 – 7.16 (m, 5H), 5.82 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.92 (d, *J* = 7.9 Hz, 1H), 4.15 – 4.06 (m, 2H), 1.41 (s, 9H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.77 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -62.58

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
19	---	---	ESIMS *m/z* 452.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 – 7.22 (m, 4H), 7.22 – 7.15 (m, 4H), 5.71 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.91 (d, *J* = 8.0 Hz, 1H), 4.21 – 4.06 (m, 1H), 4.00 (d, *J* = 9.8 Hz, 1H), 1.42 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.85 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.75, 154.96, 139.41, 139.25, 133.03, 132.77, 129.43, 129.35, 129.05, 128.74, 79.81, 72.51, 56.45, 49.17, 28.30, 19.18, 18.09
20	---	---	ESIMS *m/z* 406.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.25 – 7.14 (m, 4H), 7.06 – 6.87 (m, 4H), 5.68 (dq, *J* = 9.3, 6.2 Hz, 1H), 4.83 (s, 1H), 4.02 (d, *J* = 9.3 Hz, 1H), 3.82 (dd, *J* = 18.2, 5.9 Hz, 1H), 3.56 (dd, *J* = 18.2, 5.2 Hz, 1H), 1.43 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 169.66, 161.74 (d, *J* = 245.9 Hz), 161.63 (d, *J* = 245.7 Hz), 155.45, 136.74, 129.65 (d, *J* = 7.9 Hz), 115.70 (d, *J* = 21.3 Hz), 115.41 (d, *J* = 21.2 Hz), 79.97, 77.21, 73.15, 55.84, 42.44, 28.29, 19.17
21	---	---	ESIMS *m/z* 434.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 – 7.15 (m, 4H), 7.06 – 6.89 (m, 4H), 5.75 – 5.62 (m, 1H), 4.90 (d, *J* = 8.4 Hz, 1H), 4.11 (q, *J* = 6.7 Hz, 1H), 4.03 (d, *J* = 9.8 Hz, 1H), 1.49 – 1.33 (m, 10H), 1.30 – 1.08 (m, 4H), 0.54 (t, *J* = 7.4 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.10, 161.70 (d, *J* = 245.6 Hz), 155.20, 136.97, 129.52, 115.71 (d, *J* = 21.3 Hz), 115.44 (d, *J* = 21.2 Hz), 79.73, 73.12, 56.08, 54.46, 28.30, 25.40, 19.26, 8.95

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
22	---	---	ESIMS *m/z* 448.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 – 7.15 (m, 4H), 7.04 – 6.91 (m, 4H), 5.69 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.86 (d, *J* = 9.3 Hz, 1H), 4.09 (dd, *J* = 9.3, 4.2 Hz, 1H), 4.03 (d, *J* = 9.8 Hz, 1H), 1.69 – 1.57 (m, 1H), 1.42 (s, 9H), 1.21 (d, *J* = 6.2 Hz, 3H), 0.73 (d, *J* = 6.9 Hz, 3H), 0.43 (d, *J* = 6.8 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.77, 161.73 (d, *J* = 246.0 Hz), 155.60, 137.05, 129.61, 129.52, 129.44, 115.71 (d, *J* = 21.6 Hz), 115.49 (d, *J* = 21.4 Hz), 79.69, 73.23, 58.49, 56.03, 30.92, 28.28, 19.31, 18.96, 16.54
23	---	---	ESIMS *m/z* 462.7 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 – 7.20 (m, 4H), 7.04 – 6.92 (m, 4H), 5.68 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.72 (d, *J* = 8.9 Hz, 1H), 4.10 (td, *J* = 9.2, 5.1 Hz, 1H), 4.02 (d, *J* = 10.0 Hz, 1H), 1.41 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.96 (ddd, *J* = 13.7, 9.6, 5.5 Hz, 1H), 0.84 (m, 1H), 0.75 (d, *J* = 6.5 Hz, 3H), 0.70 (d, *J* = 6.6 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 173.06, 161.72 (d, *J* = 245.8 Hz), 155.29, 137.17, 136.83, 129.49, 115.73 (d, *J* = 21.4 Hz), 115.46 (d, *J* = 21.3 Hz), 79.74, 73.02, 56.27, 52.04, 41.48, 28.28, 24.41, 22.76, 21.53, 19.23
24	---	(Thin film) 3358, 2977, 1708, 1491, 1243, 1162, 1051, 1027	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{25}H_{33}NNaO_6$, 466.22; found, 466.2191	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.50 – 7.37 (m, 1H), 7.29 – 7.19 (m, 1H), 7.20 – 7.06 (m, 2H), 6.92 – 6.75 (m, 4H), 5.91 (dq, *J* = 10.1, 6.4 Hz, 1H), 5.03 – 4.97 (m, 1H), 4.98 (d, *J* = 9.9 Hz, 1H), 4.22 – 4.04 (m, 1H), 3.84 (s, 3H), 3.76 (s, 3H), 1.41 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
25	---	(Thin film) 3368, 2978, 1707, 1597, 1488, 1156, 1043	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{25}H_{33}NNaO_6$, 466.22; found, 466.2193	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.18 (dt, *J* = 11.8, 7.9 Hz, 2H), 6.89 (dq, *J* = 7.6, 1.5 Hz, 2H), 6.83 (dt, *J* = 4.0, 2.1 Hz, 2H), 6.71 (dddd, *J* = 10.7, 8.2, 2.6, 0.9 Hz, 2H), 5.77 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.96 (d, *J* = 8.0 Hz, 1H), 4.20 – 4.01 (m, 1H), 3.96 (d, *J* = 10.3 Hz, 1H), 3.77 (s, 3H), 3.75 (s, 3H), 1.42 (s, 9H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.79 (d, *J* = 7.2 Hz, 3H)
26	---	(Thin film) 3368 2979, 1706, 1504, 1162, 1052	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{31}F_2NNaO_4$, 470.2113; found, 470.2122	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.14 – 7.02 (m, 2H), 6.99 – 6.84 (m, 4H), 5.67 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.95 (d, *J* = 7.9 Hz, 1H), 4.22 – 4.05 (m, 1H), 3.94 (d, *J* = 9.8 Hz, 1H), 2.20 (d, *J* = 2.1 Hz, 3H), 2.19 (d, *J* = 2.2 Hz, 3H), 1.42 (s, 9H), 1.28 – 1.17 (m, 3H), 0.86 (d, *J* = 7.2 Hz, 3H)
27	---	(Thin film) 3366, 2978, 1706, 1162, 1051	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{31}Cl_2NNaO_4$, 502.1522; found, 502.1533	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.22 (dd, *J* = 4.6, 1.9 Hz, 2H), 7.13 (t, *J* = 7.9 Hz, 2H), 7.04 (ddd, *J* = 7.6, 5.1, 1.9 Hz, 2H), 5.67 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.96 (d, *J* = 7.9 Hz, 1H), 4.22 – 4.05 (m, 1H), 3.91 (d, *J* = 9.9 Hz, 1H), 2.31 (s, 3H), 2.29 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.0 Hz, 3H), 0.87 (d, *J* = 7.2 Hz, 3H)
28	---	(Thin film) 3285, 2979, 2107, 1702, 1501, 1160	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{27}H_{29}NNaO_4$, 454.1989; found, 454.1993	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.45 – 7.37 (m, 4H), 7.26 – 7.18 (m, 4H), 5.75 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.91 (d, *J* = 7.9 Hz, 1H), 4.20 – 4.06 (m, 1H), 4.04 (d, *J* = 9.9 Hz, 1H), 3.05 (s, 1H), 3.04 (s, 1H), 1.42 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H)
29	---	(Thin film) 3362, 2964, 1712, 1510, 1163, 1053	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{27}H_{37}NNaO_4$, 462.2615; found, 462.2622	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.22 – 7.16 (m, 4H), 7.13 – 7.03 (m, 4H), 5.76 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.95 (d, *J* = 7.8 Hz, 1H), 4.17 – 4.02 (m, 1H), 3.96 (d, *J* = 10.2 Hz, 1H), 2.67 – 2.45 (m, 4H), 1.41 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.21 – 1.10 (m, 6H), 0.73 (d, *J* = 7.2 Hz, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
31	---	---	ESIMS *m/z* 402.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.32 – 7.20 (m, 6H), 7.20 – 7.14 (m, 1H), 6.97 (t, *J* = 8.7 Hz, 2H), 5.75 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.92 (d, *J* = 8.0 Hz, 1H), 4.11 (t, *J* = 7.4 Hz, 1H), 4.02 (d, *J* = 10.0 Hz, 1H), 1.41 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.77 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.81, 161.71 (d, *J* = 245.7 Hz), 154.94, 141.23, 137.03 (d, *J* = 3.5 Hz), 129.56 (d, *J* = 7.9 Hz), 128.59, 127.99, 126.82, 115.62 (d, *J* = 21.3 Hz), 79.70, 72.94, 57.09, 49.16, 28.31, 14.13
33	---	---	ESIMS *m/z* 519.6 ($[M-H_2O]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.58 (t, *J* = 2.1 Hz, 2H), 7.38 (dd, *J* = 8.4, 3.9 Hz, 2H), 7.29 – 7.25 (m, 1H), 7.20 (dd, *J* = 8.5, 2.2 Hz, 1H), 5.84 (q, *J* = 6.2 Hz, 1H), 4.94 (d, *J* = 7.8 Hz, 1H), 4.14 (t, *J* = 7.4 Hz, 1H), 3.05 (s, 1H), 1.41 (s, 9H), 1.18 (d, *J* = 6.3 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.37, 155.04, 144.43, 142.16, 132.90 (d, *J* = 2.7 Hz), 131.93, 131.87, 130.51, 130.46, 128.13, 127.70, 125.08, 124.99, 80.20, 78.55, 74.10, 49.16, 34.67, 28.25, 14.28
34	---	---	ESIMS *m/z* 486.5 ($[M-H_2O]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.37 – 7.28 (m, 4H), 7.18 (ddd, *J* = 8.4, 2.2, 0.8 Hz, 1H), 7.09 (ddd, *J* = 8.4, 2.2, 0.9 Hz, 1H), 5.86 (q, *J* = 6.2 Hz, 1H), 4.93 (d, *J* = 7.8 Hz, 1H), 4.14 (t, *J* = 7.4 Hz, 1H), 3.06 (s, 1H), 1.41 (s, 9H), 1.18 (d, *J* = 6.3 Hz, 3H), 0.98 (d, *J* = 6.8 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.28, 158.09 (d, *J* = 249.9 Hz), 158.06 (d, *J* = 249.5 Hz), 155.05, 145.31 (d, *J* = 5.7 Hz), 142.98, 130.64 (d, *J* = 10.0 Hz), 121.90 (d, *J* = 8.8 Hz), 120.38 (d, *J* = 12.3 Hz), 120.24 (d, *J* = 12.3 Hz), 114.59 (d, *J* = 22.6 Hz), 114.20 (d, *J* = 22.9 Hz), 80.19, 78.60, 74.13, 49.13, 34.67, 28.25, 14.30

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
35	---	---	ESIMS *m/z* 480.6 ($[M]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.24 (dd, *J* = 10.4, 8.1 Hz, 2H), 7.09 (dd, *J* = 5.5, 2.2 Hz, 2H), 7.02 (td, *J* = 8.6, 2.3 Hz, 2H), 5.69 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.94 (d, *J* = 7.9 Hz, 1H), 4.13 (t, *J* = 7.5 Hz, 1H), 3.92 (d, *J* = 10.0 Hz, 1H), 2.33 (s, 3H), 2.31 (s, 3H), 1.42 (s, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.84 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.81, 154.92, 139.66, 139.44, 136.53, 136.10, 133.08, 132.72, 130.69, 130.57, 129.43, 129.12, 126.59, 126.46, 79.77, 72.61, 56.49, 49.17, 28.29, 20.16, 20.09, 19.23, 18.09
36	---	(Thin film) 3385, 2980, 1669, 1486, 1452, 1160, 757	---	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.82 (ddd, *J* = 8.6, 7.3, 1.8 Hz, 1H), 7.51 (tt, *J* = 7.9, 1.5 Hz, 1H), 7.33 – 7.12 (m, 3H), 7.09 (td, *J* = 7.6, 1.4 Hz, 1H), 6.94 (dd, *J* = 8.1, 1.4 Hz, 1H), 6.90 (dd, *J* = 8.1, 1.4 Hz, 1H), 6.23 (qd, *J* = 6.3, 1.6 Hz, 1H), 5.02 (d, *J* = 7.9 Hz, 1H), 4.30 – 4.13 (m, 1H), 3.21 (s, 1H), 1.42 (s, 9H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H)
37	---	(Thin film) 3375, 2981, 1703, 1609, 1515, 1453, 1433, 1380, 1367, 1284, 1250, 1208, 1162, 1113, 1053, 1023, 967, 909, 873, 821, 754, 731	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{23}H_{25}F_4NNaO_4$, 478.1612; found, 478.1624	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.18 – 6.91 (m, 6H), 5.63 (dq, *J* = 9.4, 6.2 Hz, 1H), 4.92 (d, *J* = 8.0 Hz, 1H), 4.24 – 4.06 (m, 1H), 3.98 (d, *J* = 9.5 Hz, 1H), 1.42 (s, 9H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.91 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -136.25 (dt, *J* = 20.6, 9.7 Hz), -136.69 (dt, *J* = 20.4, 9.9 Hz), -139.30 (dd, *J* = 21.3, 10.5 Hz), -139.70 (dd, *J* = 21.1, 10.1 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
38	---	(Thin film) 3440, 2981, 1704, 1600, 1497, 1452, 1379, 1367, 1306, 1250, 1210, 1162, 1095, 1054, 1023, 907, 867, 822, 799, 780, 731, 719, 689	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{23}H_{25}Cl_2F_2NNaO_4$, 510.1021; found, 510.1033	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.32 – 7.22 (m, 2H), 7.18 – 7.02 (m, 4H), 5.64 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.93 (d, *J* = 8.0 Hz, 1H), 4.25 – 4.03 (m, 1H), 3.98 (d, *J* = 9.6 Hz, 1H), 1.42 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -116.98 (q, *J* = 6.9 Hz), -117.44 (q, *J* = 6.8 Hz)
39	---	(Thin film) 3364, 2980, 2931, 1707, 1597, 1501, 1451, 1379, 1366, 1307, 1248, 1207, 1163, 1118, 1052, 1023, 959, 908, 881, 821, 781, 731	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{25}H_{31}F_2NNaO_4$, 470.2113; found, 470.2120	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.13 – 6.98 (m, 4H), 6.90 (td, *J* = 9.1, 7.4 Hz, 2H), 5.67 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.93 (d, *J* = 8.0 Hz, 1H), 4.22 – 4.02 (m, 1H), 3.91 (d, *J* = 10.1 Hz, 1H), 2.23 (d, *J* = 2.0 Hz, 3H), 2.21 (d, *J* = 2.0 Hz, 3H), 1.42 (s, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.83 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -119.99 (q, *J* = 6.8 Hz), -120.57 (q, *J* = 7.0 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
40	---	---	ESIMS *m/z* 536 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.53 (ddd, *J* = 13.6, 6.7, 4.2 Hz, 8H), 7.45 – 7.37 (m, 8H), 7.35 – 7.29 (m, 2H), 5.87 (dq, *J* = 12.3, 6.1 Hz, 1H), 4.94 (d, *J* = 7.1 Hz, 1H), 4.18 – 4.09 (m, 2H), 1.41 (s, 9H), 1.31 (d, *J* = 6.2 Hz, 3H), 0.80 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.93, 154.96, 140.72, 140.60, 140.56, 140.21, 139.92, 139.68, 128.76, 128.75, 128.51, 127.58, 127.30, 127.27, 127.23, 127.00, 126.96, 79.70, 73.12, 57.33, 49.22, 28.31, 19.39, 18.04
43	---	---	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{23}H_{25}Cl_4NNaO_4$, 542.0430; found, 542.0442	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.38 (t, *J* = 8.1 Hz, 2H), 7.32 (dd, *J* = 13.6, 2.1 Hz, 2H), 7.10 (dd, *J* = 8.4, 2.1 Hz, 1H), 7.07 (dd, *J* = 8.4, 2.1 Hz, 1H), 5.65 (dq, *J* = 9.5, 6.2 Hz, 1H), 4.93 (d, *J* = 7.9 Hz, 1H), 4.22 – 4.09 (m, 1H), 3.97 (d, *J* = 9.5 Hz, 1H), 1.42 (d, *J* = 0.9 Hz, 9H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.93 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.73, 154.93, 140.37, 140.26, 133.10, 132.76, 131.66, 131.34, 130.97, 130.67, 130.23, 130.06, 127.34, 127.27, 79.92, 71.96, 55.79, 49.16, 28.29, 19.14, 18.11

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
44	---	---	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{23}H_{25}Cl_2F_2NNaO_4$, 510.1021; found, 510.1030	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.38 – 7.28 (m, 2H), 7.06 (dd, *J* = 10.0, 1.8 Hz, 1H), 7.04 – 6.94 (m, 3H), 5.66 (ddt, *J* = 9.1, 6.9, 5.5 Hz, 1H), 4.92 (d, *J* = 8.0 Hz, 1H), 4.22 – 4.08 (m, 1H), 4.01 (d, *J* = 9.4 Hz, 1H), 1.42 (d, *J* = 1.3 Hz, 9H), 1.24 (dd, *J* = 6.2, 1.3 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.68, 158.17 (d, *J* = 250.1 Hz), 158.03 (d, *J* = 250.1 Hz), 154.93, 141.08 (d, *J* = 6.1 Hz), 140.95 (d, *J* = 6.1 Hz), 131.11, 130.80, 124.51 (d, *J* = 3.3 Hz), 124.36 (d, *J* = 3.6 Hz), 120.08 (d, *J* = 17.6 Hz), 119.78 (d, *J* = 17.6 Hz), 116.48 (d, *J* = 16.8 Hz), 116.24, 79.92, 72.02, 56.07, 49.15, 28.28, 19.10, 18.10
45	---	---	ESIMS *m/z* 300 ($[M+H]^+$)	---
46	---	---	ESIMS *m/z* 284.3 ($[M+H]^+$)	---
47	---	---	ESIMS *m/z* 296.3 ($[M+H]^+$)	---

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
48	---	(Thin film) 3395, 2885, 1741, 1603, 1508, 1459, 1381, 1324, 1224, 1159, 1137, 1118, 1049, 1015, 955, 881, 826, 793, 779, 755, 746, 721, 693, 666	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{18}H_{20}F_2NO_2$, 320.1457; found, 320.1457	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.55 (s, 3H), 7.22 (dt, *J* = 9.0, 4.8 Hz, 4H), 6.98 (q, *J* = 8.2 Hz, 4H), 5.71 (dq, *J* = 11.8, 6.1 Hz, 1H), 4.05 (d, *J* = 9.8 Hz, 2H), 1.23 (d, *J* = 5.9 Hz, 3H), 1.13 (d, *J* = 6.7 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.32, -115.70
49	---	---	ESIMS *m/z* 341.5 ($[M+Na]^+$)	---
50	---	---	ESIMS *m/z* 314.6 ($[M+H]^+$)	---
51	---	---	ESIMS *m/z* 356.4 ($[M+H]^+$)	---
52	---	---	ESIMS *m/z* 302.4 ($[M+H]^+$)	^{19}F NMR (376 MHz, $CDCl_3$) δ -169.31
53	---	---	ESIMS *m/z* 344.5 ($[M+H]^+$)	---

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
54	---	---	ESIMS *m/z* 320.4 ($[M+H]^+$)	---
55	---	---	ESIMS *m/z* 352.4 ($[M+H]^+$)	---
56	---	---	ESIMS *m/z* 282.4 ($[M+H]^+$)	---
57	---	---	ESIMS *m/z* 298.4 ($[M+H]^+$)	---
58	---	---	ESIMS *m/z* 442.4 ($[M+H]^+$)	---
59	---	---	ESIMS *m/z* 324.4 ($[M+H]^+$)	---
60	---	---	ESIMS *m/z* 312.3 ($[M+H]^+$)	---
61	---	---	ESIMS *m/z* 436 ($[M+H]^+$)	---
63	---	---	ESIMS *m/z* 375.5 ($[M+Na]^+$)	---
64	---	---	ESIMS *m/z* 375.5 ($[M+Na]^+$)	---

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
65	---	---	ESIMS *m/z* 344.5 ($[M+H]^+$)	---
66	---	---	ESIMS *m/z* 344.5 ($[M+H]^+$)	---
67	---	---	ESIMS *m/z* 348.5 ($[M+H]^+$)	---
68	---	---	ESIMS *m/z* 380.5 ($[M+H]^+$)	---
69	---	---	ESIMS *m/z* 332.5 ($[M+H]^+$)	---
70	---	---	ESIMS *m/z* 340.5 ($[M+H]^+$)	---
71	---	(Thin film) 2959, 1749, 1508, 1401, 1229, 1159, 1055, 830	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{17}H_{17}F_2NO_2$, 306.1300; found, 306.1298	---

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
72	---	(Thin film) 3452, 2855, 1742, 1601, 1506, 1454, 1220, 1159, 1136, 1046, 824	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{19}H_{22}F_2NO_2$, 335.1646; found, 335.1646	---
73	---	(Thin film) 2966, 1736, 1602, 1507, 1221, 1158, 1120, 1046, 825	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{20}H_{24}F_2NO_2$, 349.1803; found, 349.1804	---
74	---	(Thin film) 2959, 1739, 1603, 1507, 1219, 1158, 1132, 1046, 825	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{21}H_{26}F_2NO_2$, 363.1959; found, 363.1959	---
75	---	(Thin film) 3411, 2986, 1740, 1605, 1509, 1453, 1223, 1137, 1116, 1049, 700	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{18}H_{21}FNO_2$, 302.1551; found, 302.1551	---

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
77	---	(Thin film) 3363, 2941, 1743, 1467, 1385, 1236, 1201, 1173, 1136, 1117, 1061, 1029, 992, 824, 755, 723, 675	ESIMS *m/z* 438.0 ($[M+H]^+$)	---
78	---	(Thin film) 3361, 2942, 1742, 1582, 1486, 1419, 1240, 1207, 1141, 1116, 1057, 800	ESIMS *m/z* 404.0 ($[M]^+$)	---
79	---	(Thin film) 3218, 2980, 2945, 1742, 1522, 1481, 1245, 1216, 1136, 1118, 1048, 758	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{20}H_{24}Cl_2NO_2$, 380.1179; found, 380.1181	---

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
80	---	---	ESIMS *m/z* 404.4 ($[M+H]^+$)	---
81	---	---	ESIMS *m/z* 336.5 ($[M+H]^+$)	---
83	---	---	ESIMS *m/z* 408.5 ($[M+H]^+$)	---
84	---	(Thin film) 2881, 2193, 2130, 1742, 1609, 1516, 1457, 1434, 1383, 1325, 1285, 1208, 1118, 1049, 966, 906, 875, 821, 754, 710, 692, 681, 656	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{18}H_{18}F_4NO_2$, 356.1268; found, 356.1273	^{1}H NMR (300 MHz, methanol-d_4) δ 7.46 – 7.30 (m, 2H), 7.28 – 7.14 (m, 4H), 5.84 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.24 (d, *J* = 10.1 Hz, 1H), 3.96 (q, *J* = 7.3 Hz, 1H), 3.31 (pd, *J* = 1.6, 0.5 Hz, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, methanol-d_4) δ -139.39 (ddd, *J* = 19.8, 11.5, 7.5 Hz), -139.57 – -139.84 (m), -142.33 – -142.56 (m), -142.66 – -142.93 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
85	---	(Thin film) 3409, 2928, 2026, 1957, 1743, 1597, 1499, 1458, 1408, 1323, 1249, 1208, 1118, 1061, 917, 866, 822, 798, 780, 753, 718, 690, 663	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{18}H_{18}Cl_2F_2NO_2$, 388.0677; found, 388.0677	^{1}H NMR (300 MHz, methanol-d_4) δ 7.54 (dt, *J* = 7.0, 2.7 Hz, 2H), 7.37 (ddt, *J* = 8.6, 4.3, 2.1 Hz, 2H), 7.21 (td, *J* = 8.8, 4.7 Hz, 2H), 5.93 – 5.75 (m, 1H), 4.24 (d, *J* = 10.1 Hz, 1H), 3.96 (q, *J* = 7.3 Hz, 1H), 3.31 (t, *J* = 1.7 Hz, 3H), 1.28 (d, *J* = 6.1 Hz, 3H), 1.03 (d, *J* = 7.3 Hz, 3H) ^{19}F NMR (471 MHz, methanol-d_4) δ -119.62 – -119.72 (m), -119.99 – -120.08 (m)
86	---	(Thin film) 3374, 2928, 1742, 1596, 1501, 1457, 1379, 1323, 1233, 1206, 1118, 1052, 1003, 956, 933, 886, 824, 780, 752, 721, 711, 690, 681, 671, 664, 655	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{20}H_{24}F_2NO_2$, 348.1770; found, 348.1771	^{1}H NMR (300 MHz, methanol-d_4) δ 7.30 – 7.12 (m, 4H), 6.95 (td, *J* = 8.9, 6.6 Hz, 2H), 5.91 – 5.74 (m, 1H), 4.07 (d, *J* = 10.4 Hz, 1H), 3.99 – 3.83 (m, 1H), 3.30 (dtd, *J* = 3.3, 1.6, 0.6 Hz, 3H), 2.23 (t, *J* = 2.6 Hz, 6H), 1.25 (d, *J* = 6.1 Hz, 3H), 0.94 (dd, *J* = 7.3, 0.7 Hz, 3H) ^{19}F NMR (471 MHz, methanol-d_4) δ -122.00 – -122.37 (m), -122.69 (tt, *J* = 6.1, 2.9 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
87	---	(Thin film) 2879, 1746, 1587, 1561, 1517, 1468, 1395, 1227, 1194, 1116, 1053, 1029, 871, 822, 747, 727, 669	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{18}H_{18}Cl_4NO_2$, 420.0086; found, 420.0090	---
88	---	(Thin film) 2858, 1747, 1580, 1486, 1458, 1383, 1368, 1278, 1236, 1206, 1119, 1048, 970, 871, 824, 779, 761, 682	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{18}H_{18}Cl_2F_2NO_2$, 388.0677; found, 388.0688	---

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
89	---	---	HRMS-ESI (*m/z*) $[M]^+$ calcd for $C_{25}H_{26}N_2O_6$, 450.1791; found, 450.1794	^{1}H NMR (500 MHz, $CDCl_3$) δ 11.97 (d, *J* = 0.5 Hz, 1H), 8.33 (d, *J* = 8.1 Hz, 1H), 7.96 (d, *J* = 5.2 Hz, 1H), 7.47 (ddt, *J* = 8.5, 6.4, 1.3 Hz, 4H), 7.33 – 7.13 (m, 5H), 6.89 – 6.81 (m, 1H), 6.03 (q, *J* = 6.3 Hz, 1H), 4.62 – 4.49 (m, 1H), 3.93 (s, 3H), 2.74 (s, 1H), 1.23 (d, *J* = 6.3 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.30, 168.61, 155.37, 148.71, 144.85, 142.71, 140.44, 130.29, 128.33, 128.32, 127.22, 127.16, 125.51, 125.45, 109.44, 79.57, 75.54, 56.08, 47.85, 17.62, 14.32
90	---	---	HRMS-ESI (*m/z*) $([M+H]^+)$ calcd calcd for $C_{25}H_{27}N_2O_5$, 435.1920; found, 435.1925	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (d, *J* = 0.6 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.38 – 7.06 (m, 10H), 6.86 (dd, *J* = 5.3, 0.7 Hz, 1H), 5.83 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.52 (dq, *J* = 8.1, 7.2 Hz, 1H), 4.06 (d, *J* = 10.2 Hz, 1H), 3.93 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.67, 168.53, 155.34, 148.72, 141.38, 141.13, 140.40, 130.48, 128.80, 128.50, 128.10, 128.03, 126.95, 126.70, 109.39, 73.57, 57.93, 56.07, 47.85, 19.24, 17.61
91	---	---	HRMS-ESI (*m/z*) $([M+H]^+)$ calcd calcd for $C_{21}H_{23}N_2O_5S_2$, 447.1048; found, 447.1047	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (d, *J* = 0.6 Hz, 1H), 8.41 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.18 – 7.16 (m, 2H), 7.01 (ddd, *J* = 3.6, 1.3, 0.6 Hz, 1H), 6.94 – 6.88 (m, 3H), 6.86 (dd, *J* = 5.3, 0.7 Hz, 1H), 5.56 (dq, *J* = 7.4, 6.2 Hz, 1H), 4.70 – 4.58 (m, 2H), 3.94 (s, 3H), 1.30 (d, *J* = 6.2 Hz, 3H), 1.24 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.48, 168.62, 155.35, 148.74, 143.75, 142.69, 140.43, 130.48, 126.77, 126.57, 126.05, 125.43, 124.61, 124.58, 109.44, 74.83, 56.08, 47.98, 47.42, 18.69, 17.80

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
92	---	---	HRMS-ESI (*m/z*) $([M+H]^+)$ calcd calcd for $C_{25}H_{25}F_2N_2O_5$, 471.1731; found, 471.1735	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (d, *J* = 0.7 Hz, 1H), 8.32 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.3 Hz, 1H), 7.26 – 7.18 (m, 4H), 7.01 – 6.89 (m, 4H), 6.87 (d, *J* = 5.3 Hz, 1H), 5.73 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.59 – 4.49 (m, 1H), 4.05 (d, *J* = 9.8 Hz, 1H), 3.94 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.46, -115.80
93	---	---	HRMS-ESI (*m/z*) $[2M+Na]^+$ calcd for $C_{54}H_{60}N_4NaO_{12}$, 979.4106; found, 979.4119	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.03 (d, *J* = 0.7 Hz, 1H), 8.40 (d, *J* = 8.1 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.41 – 7.09 (m, 10H), 6.85 (d, *J* = 5.2 Hz, 1H), 5.97 (q, *J* = 6.3 Hz, 1H), 4.61 (dq, *J* = 8.2, 7.2 Hz, 1H), 3.94 (s, 3H), 3.39 (dq, *J* = 9.1, 6.9 Hz, 1H), 3.18 (dq, *J* = 9.2, 6.9 Hz, 1H), 1.30 (d, *J* = 7.2 Hz, 3H), 1.17 (t, *J* = 6.9 Hz, 3H), 1.13 (d, *J* = 6.3 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.45, 168.56, 155.34, 148.71, 141.84, 140.56, 140.38, 130.37, 128.25, 127.87, 127.81, 127.69, 127.33, 127.21, 109.41, 84.05, 74.30, 59.93, 56.08, 48.05, 18.02, 15.67, 14.95
95	---	---	HRMS-ESI (*m/z*) $[M-OCH_3]^+$ calcd for $C_{25}H_{25}N_2O_5$, 433.1764; found, 433.1763	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.04 (d, *J* = 0.6 Hz, 1H), 8.41 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.41 – 7.18 (m, 10H), 6.85 (d, *J* = 5.4 Hz, 1H), 5.97 (q, *J* = 6.3 Hz, 1H), 4.75 – 4.49 (m, 1H), 3.94 (s, 3H), 3.15 (s, 3H), 1.29 (d, *J* = 7.2 Hz, 3H), 1.13 (d, *J* = 6.3 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.42, 168.58, 155.35, 148.72, 141.11, 140.39, 139.89, 130.37, 128.51, 128.11, 127.86, 127.69, 127.52, 127.31, 109.42, 84.47, 74.02, 56.08, 52.55, 48.05, 17.97, 14.97

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
96	---	---	---	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.03 (d, *J* = 0.6 Hz, 1H), 8.31 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.35 (td, *J* = 8.5, 6.2 Hz, 1H), 7.23 (td, *J* = 8.4, 6.2 Hz, 1H), 6.91 – 6.74 (m, 4H), 6.69 (ddd, *J* = 10.4, 8.8, 2.6 Hz, 1H), 5.88 – 5.74 (m, 1H), 4.69 (d, *J* = 9.9 Hz, 1H), 4.64 – 4.48 (m, 1H), 3.95 (s, 3H), 1.30 (d, *J* = 6.1 Hz, 3H), 1.17 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -110.97 (d, *J* = 7.7 Hz), -111.39 (d, *J* = 7.6 Hz), -111.98 (dd, *J* = 7.7, 2.6 Hz), -112.83 (dd, *J* = 7.6, 2.6 Hz)
97	---	---	---	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (s, 1H), 8.31 (d, *J* = 7.9 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.49 – 7.40 (m, 4H), 7.37 – 7.24 (m, 5H), 7.23 – 7.18 (m, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.00 (dq, *J* = 25.4, 6.4 Hz, 1H), 4.63 – 4.51 (m, 1H), 3.94 (s, 3H), 1.32 (dd, *J* = 6.5, 1.0 Hz, 3H), 0.96 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -169.17
98	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{27}H_{31}N_2O_7$, 495.2131; found, 495.2124	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.22 – 7.12 (m, 4H), 6.90 – 6.73 (m, 5H), 5.73 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.64 – 4.44 (m, 1H), 3.96 (d, *J* = 9.9 Hz, 1H), 3.93 (s, 3H), 3.75 (s, 3H), 3.73 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.65, 168.54, 158.36, 158.20, 155.34, 148.70, 140.40, 133.83, 133.69, 130.45, 128.97, 128.92, 114.11, 113.81, 109.39, 73.77, 56.11, 56.04, 55.20, 55.19, 47.90, 19.20, 17.75

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
99	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{25}F_2N_2O_5$, 471.1731; found, 471.1724	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.05 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.3 Hz, 1H), 7.32 – 7.19 (m, 2H), 7.11 – 7.03 (m, 2H), 7.02 – 6.83 (m, 5H), 5.75 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.65 – 4.46 (m, 1H), 4.06 (d, *J* = 9.9 Hz, 1H), 3.94 (s, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.07, -112.48
100	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{25}Cl_2N_2O_5$, 503.1140; found, 503.1137	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.04 (s, 1H), 8.32 (d, *J* = 7.7 Hz, 1H), 7.98 (d, *J* = 5.3 Hz, 1H), 7.31 – 7.10 (m, 8H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.73 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.60 – 4.48 (m, 1H), 4.01 (d, *J* = 10.0 Hz, 1H), 3.94 (s, 3H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.08 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.55, 168.60, 155.36, 148.72, 142.54, 142.33, 140.47, 134.73, 134.42, 130.33, 130.23, 129.94, 128.42, 128.33, 127.52, 127.21, 126.18, 125.98, 109.47, 72.83, 57.03, 56.08, 47.85, 19.11, 17.66
101	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{25}N_2O_5$, 433.1763; found, 433.1749	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.23 – 11.94 (m, 1H), 8.64 – 8.39 (m, 1H), 8.11 – 7.92 (m, 1H), 7.78 – 7.60 (m, 3H), 7.59 – 7.48 (m, 1H), 7.46 – 7.35 (m, 2H), 7.36 – 7.26 (m, 1H), 7.27 – 7.20 (m, 1H), 6.91 – 6.84 (m, 1H), 5.87 – 5.69 (m, 1H), 4.94 – 4.76 (m, 1H), 4.35 – 4.22 (m, 1H), 4.00 – 3.93 (m, 3H), 1.69 – 1.51 (m, 3H), 0.95 – 0.59 (m, 3H)
102	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{25}N_2O_6$, 449.1712; found, 449.1707	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.16 (s, 1H), 8.51 – 8.38 (m, 1H), 8.11 – 7.82 (m, 1H), 7.34 – 7.15 (m, 4H), 7.15 – 6.94 (m, 4H), 6.91 – 6.77 (m, 1H), 5.20 – 5.09 (m, 1H), 4.78 – 4.64 (m, 1H), 4.33 – 4.17 (m, 1H), 3.96 – 9.92 (m, 3H), 1.55 – 1.42 (m, 3H), 1.10 – 0.91 (m, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
103	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{25}Br_2N_2O_5$, 591.0130; found, 591.0125	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (s, 1H), 8.33 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.50 – 7.31 (m, 4H), 7.24 – 7.01 (m, 4H), 6.87 (d, *J* = 5.2 Hz, 1H), 5.73 (dq, *J* = 9.6, 6.1 Hz, 1H), 4.55 (p, *J* = 7.3 Hz, 1H), 4.01 (d, *J* = 9.7 Hz, 1H), 3.93 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.50, 168.61, 155.39, 148.74, 140.47, 139.69, 139.59, 132.00, 131.69, 130.31, 129.80, 129.73, 121.12, 120.84, 109.52, 72.81, 56.45, 56.08, 47.86, 19.09, 17.67
104	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{23}H_{27}N_2O_5S_2$, 475.1361; found, 475.1368	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.13 (s, 1H), 8.44 (d, *J* = 8.0 Hz, 1H), 7.99 (d, *J* = 5.2 Hz, 1H), 6.87 (d, *J* = 5.2 Hz, 1H), 6.73 (d, *J* = 3.4 Hz, 1H), 6.67 (d, *J* = 3.4 Hz, 1H), 6.54 – 6.35 (m, 2H), 5.54 – 5.40 (m, 1H), 4.78 – 4.59 (m, 1H), 4.45 (d, *J* = 7.1 Hz, 1H), 3.94 (s, 3H), 2.39 (s, 6H), 1.30 (d, *J* = 2.8 Hz, 3H), 1.28 (d, *J* = 3.7 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.50, 168.60, 155.35, 148.74, 141.52, 140.47, 140.41, 139.03, 139.00, 130.53, 125.76, 125.08, 124.67, 124.42, 109.41, 74.68, 56.07, 48.00, 47.84, 18.65, 17.88, 15.25
105	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{27}H_{31}N_2O_5$, 463.2233; found, 463.2242	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.14 (s, 1H), 8.38 (d, *J* = 8.0 Hz, 1H), 7.94 (d, *J* = 5.2 Hz, 1H), 7.21 – 7.10 (m, 4H), 7.09 – 6.97 (m, 4H), 6.82 (d, *J* = 5.2 Hz, 1H), 5.79 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.53 (p, *J* = 7.3 Hz, 1H), 3.98 (d, *J* = 10.0 Hz, 1H), 3.88 (s, 3H), 2.25 (s, 3H), 2.23 (s, 3H), 1.25 (d, *J* = 6.3 Hz, 3H), 1.01 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.66, 168.57, 155.32, 148.71, 140.43, 138.63, 138.47, 136.37, 136.05, 130.45, 129.44, 129.11, 127.91, 127.85, 109.45, 73.66, 57.08, 56.02, 47.92, 20.97, 20.93, 19.24, 17.64

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
106	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{26}H_{26}F_3N_2O_5$, 503.1794; found, 503.1794	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.54 (d, *J* = 8.1 Hz, 2H), 7.42 (d, *J* = 8.1 Hz, 2H), 7.34 – 7.21 (m, 4H), 7.21 – 7.13 (m, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.85 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.61 – 4.46 (m, 1H), 4.15 (d, *J* = 9.9 Hz, 1H), 3.93 (s, 3H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -62.53
107	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{25}Cl_2N_2O_5$, 503.1140; found, 503.1139	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.05 (s, 1H), 8.32 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.38 – 7.10 (m, 8H), 6.87 (d, *J* = 5.2 Hz, 1H), 5.73 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.62 – 4.45 (m, 1H), 4.03 (d, *J* = 9.6 Hz, 1H), 3.94 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.52, 168.61, 155.41, 148.74, 140.45, 139.26, 139.15, 133.04, 132.77, 130.32, 129.41, 129.36, 129.05, 128.73, 109.49, 72.95, 56.35, 56.08, 47.86, 19.08, 17.67
109	---	---	ESIMS *m/z* 587 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.36 (d, *J* = 7.9 Hz, 1H), 7.95 (d, *J* = 5.2 Hz, 1H), 7.57 – 7.46 (m, 8H), 7.43 – 7.38 (m, 7H), 7.34 – 7.29 (m, 2H), 6.81 (d, *J* = 5.2 Hz, 1H), 5.90 (dq, *J* = 12.2, 6.1 Hz, 1H), 4.56 (p, *J* = 7.2 Hz, 1H), 4.16 (d, *J* = 10.0 Hz, 1H), 3.89 (d, *J* = 1.9 Hz, 3H), 1.34 (d, *J* = 6.1 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.71, 168.59, 155.33, 148.72, 140.65, 140.58, 140.43, 140.11, 139.94, 139.66, 130.44, 128.77, 128.73, 128.67, 128.53, 127.58, 127.30, 127.26, 127.21, 127.00, 126.94, 109.40, 73.58, 57.25, 56.04, 47.91, 19.33, 17.66

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
110	---	(Thin film) 3374, 2984, 1735, 1649, 1602, 1577, 1530, 1507, 1449, 1380, 1329, 1296, 1222, 1188, 1159, 1130, 1105, 1049, 1015, 906, 826, 809, 792, 778, 731, 704, 666	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{24}H_{23}F_2N_2O_4$, 441.1620; found, 441.1620	^{1}H NMR (400 MHz, $CDCl_3$) δ 11.80 (s, 1H), 8.30 (d, *J* = 8.0 Hz, 1H), 8.07 (dd, *J* = 4.3, 1.5 Hz, 1H), 7.40 – 7.15 (m, 6H), 7.05 – 6.85 (m, 4H), 5.73 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.65 – 4.45 (m, 1H), 4.05 (d, *J* = 9.8 Hz, 1H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.60, 168.26, 161.76 (d, *J* = 246.1 Hz), 161.64 (d, *J* = 245.7 Hz), 157.79, 139.65, 136.82 (d, *J* = 3.3 Hz), 136.71 (d, *J* = 3.5 Hz), 131.04, 129.50 (d, *J* = 7.9 Hz), 128.80, 126.08, 115.74 (d, *J* = 21.3 Hz), 115.41 (d, *J* = 21.3 Hz), 73.34, 56.14, 47.84, 19.12, 17.69 ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.44, -115.76

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
111	---	(Thin film) 3370, 2984, 2936, 2256, 1735, 1647, 1604, 1574, 1529, 1507, 1483, 1469, 1452, 1381, 1323, 1281, 1262, 1222, 1158, 1109, 1048, 1015, 990, 904, 824, 800, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{26}H_{27}F_2N_2O_5$, 485.1883; found, 485.1880	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (d, *J* = 0.6 Hz, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.95 (d, *J* = 5.2 Hz, 1H), 7.35 – 7.14 (m, 4H), 7.04 – 6.87 (m, 4H), 6.84 (d, *J* = 5.2 Hz, 1H), 5.73 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.60 – 4.48 (m, 1H), 4.16 (q, *J* = 7.0 Hz, 2H), 4.05 (d, *J* = 9.7 Hz, 1H), 1.51 (t, *J* = 7.0 Hz, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.58, 168.66, 161.75 (d, *J* = 246.1 Hz), 161.64 (d, *J* = 245.7 Hz), 154.75, 148.82, 140.38, 136.82 (d, *J* = 3.3 Hz), 136.73 (d, *J* = 3.3 Hz), 130.41, 129.51 (d, *J* = 7.6 Hz), 115.72 (d, *J* = 21.4 Hz), 115.39 (d, *J* = 21.2 Hz), 110.13, 73.32, 64.67, 56.12, 47.84, 19.11, 17.69, 14.37 ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.47, -115.80

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
112	---	(Thin film) 3370, 2984, 1729, 1641, 1601, 1531, 1507, 1491, 1450, 1361, 1305, 1281, 1254, 1222, 1177, 1158, 1135, 1087, 1048, 1015, 908, 824, 778, 752, 731, 666	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd calcd for $C_{25}H_{24}F_2NO_4$, 440.1668; found, 440.1676	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.05 (s, 1H), 7.43 – 7.33 (m, 2H), 7.30 – 7.17 (m, 4H), 7.05 – 6.90 (m, 5H), 6.88 – 6.77 (m, 2H), 5.75 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.57 (p, *J* = 7.1 Hz, 1H), 4.06 (d, *J* = 9.9 Hz, 1H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.22, 169.33, 161.79 (d, *J* = 246.2 Hz), 161.70 (d, *J* = 245.9 Hz), 161.59, 136.83 (d, *J* = 3.4 Hz), 136.61 (d, *J* = 3.4 Hz), 134.49, 129.49 (d, *J* = 8.1 Hz), 129.46 (d, *J* = 7.9 Hz), 125.62, 118.70, 118.58, 115.79 (d, *J* = 21.4 Hz), 115.50 (d, *J* = 21.3 Hz), 113.72, 73.62, 56.17, 48.29, 19.15, 17.79 ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.30, -115.60
113	---	---	ESIMS *m/z* 457.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 11.98 (d, *J* = 0.6 Hz, 1H), 8.30 (t, *J* = 5.7 Hz, 1H), 7.99 (d, *J* = 5.2 Hz, 1H), 7.24 – 7.15 (m, 4H), 7.03 – 6.85 (m, 5H), 5.71 (dq, *J* = 9.2, 6.2 Hz, 1H), 4.11 (dd, *J* = 18.1, 6.0 Hz, 1H), 4.04 (d, *J* = 9.2 Hz, 1H), 3.95 (s, 3H), 3.90 (dd, *J* = 18.1, 5.6 Hz, 1H), 1.25 (d, *J* = 6.3 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 169.18, 168.43, 161.74 (d, *J* = 246.1 Hz), 161.63 (d, *J* = 245.5 Hz), 155.42, 148.71, 140.55, 136.68, 130.30, 129.68, 129.60, 115.67 (d, *J* = 29.2 Hz), 115.46 (d, *J* = 29.1 Hz), 109.55, 73.65, 56.11, 55.77, 40.91, 19.12

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
114	---	---	ESIMS *m/z* 485.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (s, 1H), 8.32 (d, *J* = 8.5 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.46 – 7.04 (m, 4H), 7.11 – 6.65 (m, 5H), 5.71 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.51 (ddd, *J* = 8.5, 7.0, 5.4 Hz, 1H), 4.05 (d, *J* = 9.6 Hz, 1H), 3.95 (s, 3H), 1.70 – 1.57 (m, 1H), 1.49 – 1.36 (m, 1H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.67 (t, *J* = 7.5 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 170.87, 168.79, 161.74 (d, *J* = 245.9 Hz), 161.66 (d, *J* = 245.8 Hz), 155.43, 148.73, 140.42, 136.80, 130.36, 129.55 (d, *J* = 2.7 Hz), 129.47 (d, *J* = 2.7 Hz), 115.67 (d, *J* = 32.4 Hz), 115.45 (d, *J* = 32.4 Hz), 109.44, 73.48, 56.09, 56.03, 53.16, 25.16, 19.18, 9.27
115	---	---	ESIMS *m/z* 499.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.6 Hz, 1H), 8.32 (d, *J* = 9.4 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.31 – 7.07 (m, 4H), 6.97 (t, *J* = 8.6 Hz, 2H), 6.93 – 6.86 (m, 3H), 5.72 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.48 (dd, *J* = 9.4, 4.7 Hz, 1H), 4.05 (d, *J* = 9.7 Hz, 1H), 3.95 (s, 3H), 1.93 – 1.82 (m, 1H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.82 (d, *J* = 6.9 Hz, 3H), 0.65 (d, *J* = 6.8 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 170.46, 168.95, 161.73 (d, *J* = 246.4 Hz), 161.65 (d, *J* = 245.6 Hz), 155.43, 148.71, 140.42, 136.85, 130.40, 129.54 (d, *J* = 4.7 Hz), 129.47 (d, *J* = 4.7 Hz), 115.71 (d, *J* = 21.3 Hz), 115.40 (d, *J* = 21.3 Hz), 109.43, 73.51, 57.09, 56.09, 55.98, 30.96, 19.22, 19.10, 17.10

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
116	---	---	ESIMS *m/z* 513.7 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.07 (d, *J* = 0.6 Hz, 1H), 8.15 (d, *J* = 8.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.31 – 7.04 (m, 4H), 7.08 – 6.74 (m, 6H), 5.70 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.54 (ddd, *J* = 9.7, 8.8, 5.0 Hz, 1H), 4.04 (d, *J* = 9.8 Hz, 1H), 3.94 (s, 3H), 1.46 – 1.36 (m, 1H), 1.33 – 1.18 (m, 4H), 1.08 (ddd, *J* = 13.9, 9.0, 5.0 Hz, 1H), 0.82 (d, *J* = 6.5 Hz, 3H), 0.77 (d, *J* = 6.6 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.62, 168.81, 161.75 (d, *J* = 246.2 Hz), 161.66 (d, *J* = 245.6 Hz), 155.43, 148.74, 140.39, 137.02, 136.76, 130.34, 129.51 (d, *J* = 3.4 Hz), 129.44 (d, *J* = 3.5 Hz), 115.73 (d, *J* = 21.4 Hz), 115.41 (d, *J* = 21.3 Hz), 109.44, 73.37, 56.21, 56.09, 50.52, 41.00, 24.57, 22.76, 21.49, 19.14
117	---	(Thin film) 3368, 2937, 1732, 1648, 1527, 1241, 1144	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd $C_{27}H_{31}N_2O_7$, 495.2126; found, 495.2104	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.15 (d, *J* = 0.6 Hz, 1H), 8.38 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.45 (dd, *J* = 7.6, 1.7 Hz, 1H), 7.30 – 7.20 (m, 1H), 7.12 (dddd, *J* = 13.5, 8.1, 7.5, 1.7 Hz, 2H), 6.92 – 6.80 (m, 4H), 6.76 (dd, *J* = 8.2, 1.1 Hz, 1H), 5.97 (dq, *J* = 9.0, 5.7, 5.2 Hz, 1H), 5.01 (d, *J* = 10.1 Hz, 1H), 4.70 – 4.39 (m, 1H), 3.93 (s, 3H), 3.85 (s, 3H), 3.75 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.01 (d, *J* = 7.2 Hz, 3H)
118	---	(Thin film) 3368, 2937, 1734, 1648, 1527, 1261, 1148, 1041	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd $C_{27}H_{31}N_2O_7$, 495.2126; found, 495.2106	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.10 (d, *J* = 0.6 Hz, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.21 (t, *J* = 8.0 Hz, 1H), 7.15 (t, *J* = 7.9 Hz, 1H), 6.93 – 6.81 (m, 5H), 6.74 (ddd, *J* = 8.2, 2.6, 0.9 Hz, 1H), 6.68 (ddd, *J* = 8.2, 2.6, 0.9 Hz, 1H), 5.80 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.60 – 4.43 (m, 1H), 3.99 (d, *J* = 10.3 Hz, 1H), 3.94 (s, 3H), 3.77 (s, 3H), 3.75 (s, 3H), 1.26 (d, *J* = 6.0 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
119	---	(Thin film) 3367, 2985, 1738, 1647, 1575, 1481, 1263, 1153, 1058, 914	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{23}Cl_2F_2N_2O_6$, 555.0896; found, 555.0909	^{1}H NMR (300 MHz, $CDCl_3$) δ 11.92 (s, 1H), 8.36 (d, *J* = 8.1 Hz, 1H), 7.95 (d, *J* = 5.2 Hz, 1H), 7.77 (t, *J* = 8.5 Hz, 1H), 7.37 (t, *J* = 8.5 Hz, 1H), 7.15 (ddd, *J* = 8.5, 2.1, 0.7 Hz, 1H), 7.08 – 6.89 (m, 3H), 6.86 (d, *J* = 5.3 Hz, 1H), 6.10 (q, *J* = 6.2 Hz, 1H), 4.66 (p, *J* = 7.3 Hz, 1H), 3.95 (s, 3H), 3.22 (s, 1H), 1.36 (d, *J* = 7.2 Hz, 3H), 1.24 (d, *J* = 6.3 Hz, 3H)
120	---	(Thin film) 3369, 2934, 1735, 1648, 1576, 1527, 1451, 1261	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_5$, 499.2039; found, 499.2050	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.06 (d, *J* = 0.6 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.16 – 7.01 (m, 2H), 7.01 – 6.79 (m, 5H), 5.70 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.70 – 4.43 (m, 1H), 3.97 (d, *J* = 9.3 Hz, 1H), 3.94 (s, 3H), 2.20 (d, *J* = 1.9 Hz, 3H), 2.17 (d, *J* = 1.9 Hz, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H)
121	---	(Thin film) 3367, 2980, 1735, 1648, 1527, 1450, 1262, 1050	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}Cl_2N_2O_5$, 531.1448; found, 531.1458	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.14 – 11.95 (m, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.21 (d, *J* = 1.5 Hz, 2H), 7.19 – 6.99 (m, 4H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.69 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.55 (p, *J* = 7.3 Hz, 1H), 3.94 (d, *J* = 9.9 Hz, 1H), 3.94 (s, 3H), 2.31 (s, 3H), 2.27 (s, 3H), 1.25 (d, *J* = 6.0 Hz, 3H), 1.10 (d, *J* = 7.2 Hz, 3H)
122	---	(Thin film) 3367, 2986, 1737, 1647, 1611, 1482, 1452, 1215, 1148, 1057	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{25}F_2N_2O_6$, 487.1675; found, 487.1686	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.00 (d, *J* = 0.6 Hz, 1H), 8.41 (d, *J* = 8.1 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.87 – 7.75 (m, 1H), 7.48 (tt, *J* = 8.0, 1.5 Hz, 1H), 7.28 – 7.12 (m, 3H), 7.10 – 6.98 (m, 1H), 6.99 – 6.86 (m, 2H), 6.90 – 6.82 (m, 1H), 6.26 (qd, *J* = 6.3, 1.5 Hz, 1H), 4.73 – 4.57 (m, 1H), 3.94 (s, 3H), 3.19 (dd, *J* = 2.8, 1.9 Hz, 1H), 1.28 (d, *J* = 6.3 Hz, 3H), 1.27 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -111.85 – -112.11 (m), -112.15 – -112.47 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
123	---	(Thin film) 3285, 2981, 2107, 1736, 1648, 1528, 1263, 1050	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{27}N_2O_5$, 483.1914; found, 483.1919	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (d, *J* = 0.6 Hz, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.45 – 7.40 (m, 2H), 7.40 – 7.35 (m, 2H), 7.28 – 7.18 (m, 4H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.78 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.61 – 4.45 (m, 1H), 4.07 (d, *J* = 9.8 Hz, 1H), 3.94 (s, 3H), 3.05 (s, 1H), 3.03 (s, 1H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H)
124	---	(Thin film) 3368, 2963, 1735, 1648, 1527, 1480, 1450, 1280, 1263, 1142, 1053	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_5$, 491.2540; found, 491.2551	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.12 (s, 1H), 8.37 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.24 – 7.18 (m, 4H), 7.14 – 7.08 (m, 2H), 7.08 – 7.02 (m, 2H), 6.85 (d, *J* = 5.2 Hz, 1H), 5.80 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.63 – 4.40 (m, 1H), 3.99 (d, *J* = 10.2 Hz, 1H), 3.93 (s, 3H), 2.65 – 2.50 (m, 4H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.18 (t, *J* = 7.6 Hz, 3H), 1.14 (t, *J* = 7.6 Hz, 3H), 0.94 (d, *J* = 7.2 Hz, 3H)
125	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{26}FN_2O_5$, 453.1820; found, 453.1831	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.6 Hz, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.32 – 7.20 (m, 5H), 7.19 – 7.10 (m, 1H), 6.97 (t, *J* = 8.7 Hz, 2H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.78 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.58 – 4.45 (m, 1H), 4.05 (d, *J* = 10.0 Hz, 1H), 3.94 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 0.98 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.63, 168.54, 161.72 (d, *J* = 245.7 Hz), 155.35, 148.71, 141.10, 140.41, 136.91 (d, *J* = 3.5 Hz), 130.42, 129.58 (d, *J* = 7.8 Hz), 128.59, 127.95, 126.84, 115.64 (d, *J* = 21.3 Hz), 109.40, 73.39, 57.04, 56.07, 47.83, 19.15, 17.59

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
127	---	---	ESIMS *m/z* 589.5 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 11.77 (d, *J* = 0.6 Hz, 1H), 8.25 (d, *J* = 8.0 Hz, 1H), 7.96 (d, *J* = 5.2 Hz, 1H), 7.53 (dd, *J* = 20.0, 2.2 Hz, 2H), 7.35 (dd, *J* = 8.5, 1.8 Hz, 2H), 7.18 (ddd, *J* = 10.9, 8.5, 2.3 Hz, 2H), 6.88 (d, *J* = 5.2 Hz, 1H), 5.80 (q, *J* = 6.3 Hz, 1H), 4.68 – 4.47 (m, 1H), 3.95 (s, 3H), 1.27 (d, *J* = 7.3 Hz, 3H), 1.20 (d, *J* = 6.4 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 170.98, 168.86, 155.52, 148.74, 144.18, 141.99, 140.57, 132.92, 132.87, 132.02, 131.86, 130.48, 130.37, 129.91, 128.15, 127.74, 125.09, 124.82, 109.64, 78.58, 74.60, 56.11, 48.05, 17.56, 14.13
128	---	---	ESIMS *m/z* 555.6 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 11.78 (d, *J* = 0.6 Hz, 1H), 8.25 (d, *J* = 8.0 Hz, 1H), 7.96 (d, *J* = 5.3 Hz, 1H), 7.33 – 7.27 (m, 2H), 7.22 (dd, *J* = 10.4, 2.2 Hz, 1H), 7.08 (dddd, *J* = 19.0, 8.5, 2.1, 0.8 Hz, 2H), 6.88 (d, *J* = 5.2 Hz, 1H), 5.82 (q, *J* = 6.3 Hz, 1H), 4.65 – 4.51 (m, 1H), 3.95 (s, 3H), 3.00 (s, 1H), 1.26 (d, *J* = 7.2 Hz, 3H), 1.20 (d, *J* = 6.3 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 170.92, 168.87, 158.04 (d, *J* = 249.8 Hz), 157.99 (d, *J* = 249.5 Hz), 155.54, 148.76, 145.02 (d, *J* = 5.5 Hz), 142.77 (d, *J* = 6.0 Hz), 140.55, 130.65, 130.55, 129.94, 122.05 (d, *J* = 3.7 Hz), 121.65 (d, *J* = 3.6 Hz), 120.45 (d, *J* = 17.8 Hz), 120.25 (d, *J* = 17.7 Hz), 114.56 (d, *J* = 22.7 Hz), 114.26 (d, *J* = 23.0 Hz), 109.62, 78.63, 74.64, 56.12, 48.02, 17.52, 14.30

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
129	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}Cl_2N_2O_5$, 531.1448; found, 531.1454	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (s, 1H), 8.32 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.25 (d, *J* = 9.7 Hz, 1H), 7.19 (d, *J* = 8.2 Hz, 1H), 7.09 (dd, *J* = 4.0, 2.3 Hz, 2H), 7.02 (td, *J* = 8.5, 2.3 Hz, 2H), 6.87 (d, *J* = 5.2 Hz, 1H), 5.71 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.54 (p, *J* = 7.3 Hz, 1H), 3.99 – 3.92 (m, 4H), 2.33 (s, 3H), 2.29 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.61, 168.57, 155.39, 148.74, 140.44, 139.53, 139.35, 136.56, 136.15, 133.12, 132.77, 130.63, 130.59, 130.34, 129.45, 129.12, 126.59, 126.41, 109.44, 73.05, 56.45, 56.08, 47.85, 20.17, 20.08, 19.15, 17.69

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
130	---	(Thin film) 3376, 2986, 2360, 2107, 1736, 1652, 1604, 1558, 1530, 1508, 1452, 1427, 1381, 1329, 1287, 1262, 1247, 1223, 1187, 1159, 1137, 1116, 1049, 1015, 911, 826, 792, 779, 729, 680, 668	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{24}H_{22}BrF_2N_2O_4$, 521.0709; found, 521.0713	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.63 (s, 1H), 8.32 (d, *J* = 7.9 Hz, 1H), 7.88 (d, *J* = 4.9 Hz, 1H), 7.62 (d, *J* = 4.9 Hz, 1H), 7.29 – 7.15 (m, 4H), 7.05 – 6.85 (m, 4H), 5.74 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.61 – 4.48 (m, 1H), 4.05 (d, *J* = 9.9 Hz, 1H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.39, 167.69, 161.76 (d, *J* = 246.1 Hz), 161.65 (d, *J* = 246.0 Hz), 155.39, 139.43, 136.82 (d, *J* = 3.4 Hz), 136.63 (d, *J* = 3.1 Hz), 132.21, 131.44, 129.47 (d, *J* = 8.0 Hz), 129.44 (d, *J* = 7.9 Hz), 122.15, 115.76 (d, *J* = 21.3 Hz), 115.42 (d, *J* = 21.3 Hz), 73.47, 56.15, 48.05, 19.11, 17.61 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.26 – -115.47 (m), -115.64 (ddd, *J* = 13.7, 8.9, 5.2 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
131	---	(Thin film) 3373, 2940, 1739, 1651, 1609, 1577, 1518, 1481, 1454, 1436, 1382, 1324, 1283, 1243, 1210, 1149, 1120, 1054, 954, 924, 872, 850, 824, 801, 754, 733	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{23}F_4N_2O_5$, 507.1538; found, 507.1543	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.01 (d, *J* = 0.6 Hz, 1H), 8.31 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.18 – 6.91 (m, 5H), 6.88 (d, *J* = 5.2 Hz, 1H), 5.66 (dq, *J* = 9.4, 6.2 Hz, 1H), 4.64 – 4.49 (m, 1H), 4.01 (d, *J* = 9.4 Hz, 1H), 3.95 (s, 3H), 1.32 – 1.21 (m, 4H), 1.16 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -136.05 – -136.27 (m), -136.61 (ddd, *J* = 20.1, 11.4, 8.1 Hz), -139.14 – -139.32 (m), -139.45 – -139.68 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
132	---	(Thin film) 3372, 2983, 1737, 1649, 1601, 1576, 1529, 1498, 1481, 1453, 1439, 1381, 1323, 1245, 1184, 1145, 1096, 1060, 953, 909, 864, 849, 824, 800, 730, 689	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{23}Cl_2F_2N_2O_5$, 539.0947; found, 539.0954	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.02 (d, *J* = 0.6 Hz, 1H), 8.31 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.27 (td, *J* = 7.3, 2.1 Hz, 2H), 7.19 – 6.98 (m, 4H), 6.88 (d, *J* = 5.2 Hz, 1H), 5.66 (dq, *J* = 9.5, 6.1 Hz, 1H), 4.66 – 4.48 (m, 1H), 4.01 (d, *J* = 9.6 Hz, 1H), 3.95 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.17 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -116.83 – -116.94 (m), -117.22 – -117.34 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
133	---	(Thin film) 3372, 2935, 2257, 1735, 1649, 1576, 1528, 1501, 1481, 1452, 1439, 1380, 1324, 1281, 1262, 1241, 1206, 1149, 1118, 1051, 952, 908, 849, 821, 800, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_5$, 499.2039; found, 499.2046	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.5 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.12 – 6.98 (m, 5H), 6.97 – 6.79 (m, 3H), 5.70 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.65 – 4.46 (m, 1H), 3.94 (s, 3H), 2.21 (dd, *J* = 9.8, 1.9 Hz, 6H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -119.78 – -120.04 (m), -120.30 – -120.53 (m)
135	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{25}F_2N_2O_5$, 471.1726; found, 471.1742	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.6 Hz, 1H), 8.20 (d, *J* = 8.0 Hz, 1H), 8.00 (d, *J* = 5.2 Hz, 1H), 7.26 – 7.13 (m, 4H), 7.02 – 6.83 (m, 5H), 5.69 (dq, *J* = 9.0, 6.2 Hz, 1H), 4.53 (dq, *J* = 8.0, 7.2 Hz, 1H), 4.05 (d, *J* = 9.1 Hz, 1H), 3.96 (s, 3H), 1.34 (d, *J* = 7.2 Hz, 3H), 1.22 (d, *J* = 6.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.27, 168.54, 162.68, 162.58, 160.73, 160.63, 155.43, 148.77, 140.44, 136.81, 136.78, 136.46, 136.43, 130.33, 129.72, 129.66, 129.63, 129.57, 115.74, 115.57, 115.43, 115.26, 109.49, 73.33, 56.11, 55.65, 47.80, 18.95, 17.74

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
136	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{23}Cl_4N_2O_5$, 571.0356; found, 571.0367	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.00 (s, 1H), 8.30 (d, *J* = 7.8 Hz, 1H), 7.98 (d, *J* = 5.1 Hz, 1H), 7.42 – 7.28 (m, 4H), 7.09 (ddd, *J* = 10.1, 8.3, 2.2 Hz, 2H), 6.87 (d, *J* = 5.2 Hz, 1H), 5.65 (dt, *J* = 12.2, 6.1 Hz, 1H), 4.57 (p, *J* = 7.3 Hz, 1H), 4.00 (d, *J* = 9.6 Hz, 1H), 3.95 (s, 3H), 1.27 (d, *J* = 5.9 Hz, 3H), 1.17 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.45, 168.64, 155.42, 148.74, 140.51, 140.21, 140.16, 133.11, 132.76, 131.70, 131.38, 130.97, 130.67, 130.27, 130.20, 130.08, 127.25, 127.17, 109.53, 72.38, 56.09, 55.71, 47.87, 19.03, 17.71
137	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{23}Cl_2F_2N_2O_5$, 539.0947; found, 539.0953	^{1}H NMR (300 MHz, $CDCl_3$) δ 11.99 (s, 1H), 8.30 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.42 – 7.19 (m, 2H), 7.08 – 6.94 (m, 4H), 6.90 – 6.84 (m, 1H), 5.67 (dq, *J* = 9.4, 6.2 Hz, 1H), 4.65 – 4.48 (m, 1H), 4.03 (d, *J* = 9.4 Hz, 1H), 3.95 (s, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 1.16 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.41, 168.64, 158.16 (d, *J* = 250.2 Hz), 158.01 (d, *J* = 250.1 Hz), 155.42, 148.75, 140.91 (d, *J* = 6.1 Hz), 140.83 (d, *J* = 6.3 Hz), 140.51, 131.12, 130.81, 130.20, 124.67 – 123.96 (m), 120.11 (d, *J* = 17.5 Hz), 119.82 (d, *J* = 17.7 Hz), 116.78 – 116.06 (m), 109.52, 72.44, 56.09, 47.85, 18.99, 17.71

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
138	---	---	HRMS-ESI (*m/z*) $[M]^+$ calcd for $C_{28}H_{30}N_2O_8$, 522.2002; found, 522.2006	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.13 (d, *J* = 8.0 Hz, 1H), 7.50 – 7.44 (m, 4H), 7.27 (ddd, *J* = 11.5, 8.5, 7.0 Hz, 4H), 7.20 – 7.14 (m, 2H), 6.94 (d, *J* = 5.4 Hz, 1H), 6.01 (q, *J* = 6.3 Hz, 1H), 5.75 – 5.62 (m, 2H), 4.63 – 4.52 (m, 1H), 3.90 (s, 3H), 2.94 (s, 1H), 2.06 (s, 3H), 1.22 (d, *J* = 6.3 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.88, 170.27, 163.03, 160.26, 145.73, 144.99, 143.90, 142.88, 142.57, 128.31, 128.28, 127.14, 127.07, 125.56, 125.54, 109.58, 89.49, 79.55, 75.21, 56.19, 48.10, 30.93, 20.87, 17.75, 14.36
139	---	---	HRMS-ESI (*m/z*) $([M+H]^+)$ calcd for $C_{27}H_{29}N_2O_6$, 477.2025; found, 477.2019	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 7.8 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.38 – 7.10 (m, 10H), 6.97 (d, *J* = 5.4 Hz, 1H), 5.82 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.52 (dt, *J* = 8.2, 7.1 Hz, 1H), 4.05 (d, *J* = 10.1 Hz, 1H), 3.87 (s, 3H), 2.37 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.89 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.23, 168.89, 162.28, 159.42, 146.66, 141.55, 141.44, 141.25, 137.45, 128.77, 128.50, 128.13, 128.11, 126.89, 126.67, 109.73, 73.32, 57.90, 56.27, 47.85, 20.75, 19.25, 17.92

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
140	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}N_2O_6$, 505.2338; found, 505.2324	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.35 (d, *J* = 7.7 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.34 – 7.09 (m, 10H), 6.95 (d, *J* = 5.5 Hz, 1H), 5.81 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.62 – 4.44 (m, 1H), 4.05 (d, *J* = 10.0 Hz, 1H), 3.85 (s, 3H), 2.93 (hept, *J* = 7.0 Hz, 1H), 1.34 (d, *J* = 7.0 Hz, 6H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.88 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 174.69, 172.33, 162.28, 159.39, 146.56, 141.95, 141.45, 141.27, 137.61, 128.76, 128.50, 128.14, 128.12, 126.89, 126.67, 109.58, 73.28, 57.90, 56.27, 47.83, 33.94, 19.24, 18.82, 17.96
141	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{31}N_2O_7$, 507.2131; found, 507.2125	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.25 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 7.9 Hz, 1H), 7.34 – 7.09 (m, 10H), 6.92 (d, *J* = 5.4 Hz, 1H), 5.83 (dq, *J* = 10.1, 6.2 Hz, 1H), 5.72 (d, *J* = 0.7 Hz, 2H), 4.60 – 4.49 (m, 1H), 4.06 (d, *J* = 10.1 Hz, 1H), 3.88 (s, 3H), 2.05 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 0.91 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.33, 170.25, 162.88, 160.24, 145.70, 143.91, 142.54, 141.48, 141.25, 128.76, 128.49, 128.12, 128.09, 126.89, 126.65, 109.56, 89.50, 73.27, 57.92, 56.17, 48.07, 20.86, 19.25, 17.73

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
142	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{35}N_2O_7$, 535.2444; found, 535.2431	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.28 (d, *J* = 7.9 Hz, 1H), 8.25 (d, *J* = 5.3 Hz, 1H), 7.36 – 7.08 (m, 10H), 6.92 (d, *J* = 5.4 Hz, 1H), 5.83 (dq, *J* = 10.1, 6.2 Hz, 1H), 5.79 – 5.69 (m, 2H), 4.62 – 4.44 (m, 1H), 4.06 (d, *J* = 10.1 Hz, 1H), 3.86 (s, 3H), 2.53 (hept, *J* = 7.0 Hz, 1H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.13 (d, *J* = 7.0 Hz, 6H), 0.91 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 176.22, 172.34, 162.85, 160.23, 145.55, 144.16, 142.18, 141.48, 141.26, 128.76, 128.49, 128.12, 128.09, 126.89, 126.65, 109.48, 89.90, 73.26, 57.93, 56.12, 48.07, 33.85, 19.26, 18.68, 17.74
143	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{23}H_{25}N_2O_6S_2$, 489.1154; found, 489.1154	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.49 (d, *J* = 8.1 Hz, 1H), 8.31 (d, *J* = 5.5 Hz, 1H), 7.21 – 7.13 (m, 2H), 7.03 – 6.97 (m, 2H), 6.95 – 6.86 (m, 3H), 5.54 (dq, *J* = 7.3, 6.2 Hz, 1H), 4.70 – 4.61 (m, 2H), 3.88 (s, 3H), 2.39 (s, 3H), 1.28 (d, *J* = 6.2 Hz, 3H), 1.17 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.03, 168.89, 162.33, 159.44, 146.66, 143.85, 142.75, 141.50, 137.48, 126.75, 126.56, 126.06, 125.43, 124.60, 124.55, 109.78, 74.58, 56.28, 47.96, 47.41, 20.76, 18.68, 18.14
144	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{24}H_{27}N_2O_7S_2$, 519.1259; found, 519.1258	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.30 (d, *J* = 7.9 Hz, 1H), 8.26 (d, *J* = 5.4 Hz, 1H), 7.21 – 7.13 (m, 2H), 7.02 (ddd, *J* = 3.5, 1.2, 0.6 Hz, 1H), 6.96 – 6.88 (m, 4H), 5.73 (d, *J* = 0.7 Hz, 2H), 5.55 (dq, *J* = 7.4, 6.2 Hz, 1H), 4.75 – 4.60 (m, 2H), 3.89 (s, 3H), 2.06 (s, 3H), 1.29 (d, *J* = 6.3 Hz, 3H), 1.19 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.13, 170.25, 162.91, 160.26, 145.69, 143.96, 143.86, 142.81, 142.46, 126.74, 126.55, 126.03, 125.42, 124.58, 124.54, 109.59, 89.52, 74.55, 56.19, 48.18, 47.42, 20.87, 18.70, 17.95

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
145	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}F_2N_2O_6$, 513.1837; found, 513.1835	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.48 – 8.37 (m, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.29 – 7.18 (m, 4H), 7.05 – 6.90 (m, 5H), 5.72 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.55 (dq, *J* = 8.3, 7.2 Hz, 1H), 4.05 (d, *J* = 9.6 Hz, 1H), 3.88 (s, 3H), 2.38 (s, 3H), 1.22 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.58, -115.93
146	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_7$, 543.1943; found, 543.1938	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 7.8 Hz, 1H), 7.32 – 7.16 (m, 4H), 7.05 – 6.89 (m, 5H), 5.78 – 5.68 (m, 1H), 5.72 (s, 2H), 4.64 – 4.50 (m, 1H), 4.06 (d, *J* = 9.7 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.59, -115.97
147	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{35}N_2O_8$, 551.2393; found, 551.2396	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.34 (d, *J* = 7.9 Hz, 1H), 8.25 (d, *J* = 5.4 Hz, 1H), 7.39 – 7.16 (m, 10H), 6.94 (d, *J* = 5.4 Hz, 1H), 5.97 (q, *J* = 6.2 Hz, 1H), 5.78 – 5.61 (m, 2H), 4.74 – 4.56 (m, 1H), 3.90 (s, 3H), 3.42 (dq, *J* = 9.2, 7.0 Hz, 1H), 3.21 (dq, *J* = 9.2, 7.0 Hz, 1H), 2.05 (s, 3H), 1.25 (d, *J* = 7.2 Hz, 3H), 1.19 (t, *J* = 6.9 Hz, 3H), 1.12 (d, *J* = 6.3 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.13, 170.23, 162.87, 160.27, 145.64, 144.02, 142.35, 142.09, 140.72, 128.24, 127.84, 127.81, 127.70, 127.27, 127.18, 109.57, 89.52, 84.04, 74.08, 59.96, 56.18, 48.26, 20.86, 18.23, 15.70, 14.95

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
148	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{27}F_4N_2O_7$, 579.1754; found, 579.1756	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.3 Hz, 1H), 8.22 (d, *J* = 7.8 Hz, 1H), 7.38 (td, *J* = 8.6, 6.2 Hz, 1H), 7.24 (td, *J* = 8.4, 6.3 Hz, 1H), 6.96 (d, *J* = 5.5 Hz, 1H), 6.88 – 6.69 (m, 4H), 5.88 – 5.75 (m, 1H), 5.73 (s, 2H), 4.69 (d, *J* = 9.8 Hz, 1H), 4.65 – 4.55 (m, 1H), 3.91 (s, 3H), 2.07 (s, 3H), 1.29 (d, *J* = 6.2 Hz, 3H), 1.10 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -111.11 (d, *J* = 7.6 Hz), -111.57 (d, *J* = 7.5 Hz), -111.99 (dd, *J* = 7.7, 2.6 Hz), -112.76 (dd, *J* = 7.6, 2.5 Hz)
149	---	---	HRMS-ESI (*m/z*) $[M-OCH_3]^+$ calcd for $C_{28}H_{29}N_2O_7$, 505.1975; found, 505.1975	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.33 (d, *J* = 7.9 Hz, 1H), 8.25 (d, *J* = 5.4 Hz, 1H), 7.40 – 7.18 (m, 10H), 6.94 (d, *J* = 5.4 Hz, 1H), 5.97 (q, *J* = 6.2 Hz, 1H), 5.81 – 5.63 (m, 2H), 4.72 – 4.52 (m, 1H), 3.90 (s, 3H), 3.17 (s, 3H), 2.05 (s, 3H), 1.24 (d, *J* = 7.2 Hz, 3H), 1.12 (d, *J* = 6.3 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.09, 170.24, 162.88, 160.27, 145.65, 144.02, 142.35, 141.39, 140.04, 128.50, 128.08, 127.87, 127.71, 127.45, 127.28, 109.57, 89.53, 84.46, 73.81, 56.19, 52.59, 48.25, 20.86, 18.18, 14.98
150	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{25}F_4N_2O_6$, 549.1648; found, 549.1645	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39 (d, *J* = 8.1 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.37 (td, *J* = 8.5, 6.1 Hz, 1H), 7.23 (td, *J* = 8.5, 6.2 Hz, 1H), 7.00 (d, *J* = 5.5 Hz, 1H), 6.90 – 6.68 (m, 4H), 5.89 – 5.71 (m, 1H), 4.69 (d, *J* = 9.8 Hz, 1H), 4.62 – 4.51 (m, 1H), 3.90 (s, 3H), 2.39 (s, 3H), 1.28 (d, *J* = 6.2 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -111.11 (d, *J* = 7.7 Hz), -111.55 (d, *J* = 7.5 Hz), -112.01 (dd, *J* = 7.7, 2.6 Hz), -112.80 (dd, *J* = 7.6, 2.6 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
152	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{28}FN_2O_6$, 495.1931; found, 495.1926	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.38 (d, *J* = 8.2 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.50 – 7.37 (m, 4H), 7.37 – 7.19 (m, 6H), 6.98 (d, *J* = 5.5 Hz, 1H), 5.98 (dq, *J* = 25.1, 6.4 Hz, 1H), 4.63 – 4.54 (m, 1H), 3.87 (s, 3H), 2.37 (s, 3H), 1.30 (d, *J* = 6.5 Hz, 3H), 0.88 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -168.48
153	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_7$, 525.2037; found, 525.2033	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.3 Hz, 1H), 8.20 (d, *J* = 7.7 Hz, 1H), 7.49 – 7.40 (m, 4H), 7.36 – 7.21 (m, 6H), 6.93 (d, *J* = 5.5 Hz, 1H), 5.99 (dq, *J* = 25.2, 6.4 Hz, 1H), 5.71 (s, 2H), 4.68 – 4.49 (m, 1H), 3.89 (s, 3H), 2.05 (s, 3H), 1.31 (d, *J* = 6.5 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -168.67
155	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}N_2O_8$, 537.2237; found, 537.2226	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 8.1 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.26 – 7.13 (m, 4H), 6.97 (d, *J* = 5.5 Hz, 1H), 6.85 – 6.71 (m, 4H), 5.71 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.64 – 4.47 (m, 1H), 3.96 (d, *J* = 9.8 Hz, 1H), 3.87 (s, 3H), 3.74 (s, 3H), 3.72 (s, 3H), 2.38 (s, 3H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.98 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.21, 168.88, 162.28, 159.42, 158.33, 158.20, 146.66, 141.53, 137.43, 133.90, 133.82, 129.02, 129.00, 114.09, 113.83, 109.74, 73.54, 56.26, 56.08, 55.19, 47.90, 20.74, 19.22, 18.08

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
156	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}F_2N_2O_6$, 513.1837; found, 513.1833	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 7.6 Hz, 1H), 8.31 (d, *J* = 5.5 Hz, 1H), 7.32 – 7.18 (m, 2H), 7.12 – 6.82 (m, 7H), 5.73 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.64 – 4.43 (m, 1H), 4.06 (d, *J* = 9.8 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.15, -112.56
157	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}Cl_2N_2O_6$, 545.1246; found, 545.1239	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 7.7 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.31 – 7.10 (m, 8H), 6.99 (d, *J* = 5.5 Hz, 1H), 5.72 (dq, *J* = 9.8, 6.0 Hz, 1H), 4.59 – 4.50 (m, 1H), 4.01 (d, *J* = 9.8 Hz, 1H), 3.88 (s, 3H), 2.38 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.10, 168.87, 162.33, 159.43, 146.68, 142.60, 142.44, 141.40, 137.46, 134.67, 134.38, 130.21, 129.95, 128.46, 128.34, 128.10, 127.45, 127.17, 126.23, 126.13, 109.80, 72.61, 56.98, 56.28, 47.82, 20.75, 19.12, 17.98
158	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{35}N_2O_9$, 567.2342; found, 567.2338	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 8.0 Hz, 1H), 7.24 – 7.14 (m, 4H), 6.93 (d, *J* = 5.4 Hz, 1H), 6.85 – 6.75 (m, 4H), 5.77 – 5.68 (m, 1H), 5.72 (s, 2H), 4.63 – 4.50 (m, 1H), 3.97 (d, *J* = 9.9 Hz, 1H), 3.89 (s, 3H), 3.75 (s, 3H), 3.73 (s, 3H), 2.05 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.34, 170.24, 162.88, 160.24, 158.33, 158.20, 145.70, 143.91, 142.54, 133.95, 133.82, 129.00, 114.09, 113.83, 109.55, 89.51, 73.49, 56.17, 56.10, 55.20, 48.12, 20.85, 19.23, 17.90

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
159	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_7$, 543.1943; found, 543.1941	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.9 Hz, 1H), 7.32 – 7.18 (m, 2H), 7.14 – 7.03 (m, 2H), 7.04 – 6.80 (m, 5H), 5.82 – 5.67 (m, 1H), 5.72 (s, 2H), 4.65 – 4.48 (m, 1H), 4.07 (d, *J* = 9.9 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.16, -112.59
160	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}Cl_2N_2O_7$, 575.1352; found, 575.1349	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.3 Hz, 1H), 8.22 (d, *J* = 7.6 Hz, 1H), 7.33 – 7.10 (m, 8H), 6.94 (d, *J* = 5.4 Hz, 1H), 5.80 – 5.65 (m, 1H), 5.72 (s, 2H), 4.60 – 4.52 (m, 1H), 4.03 (d, *J* = 9.8 Hz, 1H), 3.90 (s, 3H), 2.06 (d, *J* = 1.8 Hz, 3H), 1.26 (d, *J* = 6.0 Hz, 3H), 1.02 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.34, 170.24, 162.88, 160.24, 158.33, 158.20, 145.70, 143.91, 142.54, 133.95, 133.82, 129.00, 114.09, 113.83, 109.55, 89.51, 73.49, 56.17, 56.10, 55.20, 48.12, 20.85, 19.23, 17.90
161	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}N_2O_6$, 475.1869; found, 475.1865	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.77 – 8.53 (m, 1H), 8.40 – 8.29 (m, 1H), 7.79 – 7.62 (m, 3H), 7.61 – 7.47 (m, 1H), 7.47 – 7.34 (m, 2H), 7.34 – 7.20 (m, 2H), 7.05 – 6.94 (m, 1H), 5.83 – 5.66 (m, 1H), 4.93 – 4.77 (m, 1H), 4.37 – 4.21 (m, 1H), 3.89 (s, 3H), 2.47 – 2.37 (m, 3H), 1.63 – 1.47 (m, 3H), 0.84 – 0.67 (m, 3H)
162	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}N_2O_7$, 491.1818; found, 491.1813	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.58 – 8.43 (m, 1H), 8.40 – 8.32 (m, 1H), 7.36 – 7.19 (m, 4H), 7.13 – 7.03 (m, 4H), 7.02 – 6.97 (m, 1H), 5.17 – 5.05 (m, 1H), 4.77 – 4.64 (m, 1H), 4.35 – 4.19 (m, 1H), 3.96 – 3.85 (m, 3H), 2.40 (d, *J* = 3.6 Hz, 3H), 1.50 – 1.41 (m, 3H), 1.07 – 0.93 (m, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
163	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}N_2O_7$, 505.1975; found, 505.1961	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.52 – 8.37 (m, 1H), 8.32 – 8.24 (m, 1H), 7.80 – 7.63 (m, 3H), 7.61 – 7.47 (m, 1H), 7.45 – 7.22 (m, 4H), 7.01 – 6.92 (m, 1H), 5.83 – 5.68 (m, 3H), 4.97 – 4.73 (m, 1H), 4.38 – 4.19 (m, 1H), 3.92 (s, 3H), 2.07 (s, 3H), 1.64 – 1.49 (m, 3H), 0.90 – 0.66 (m, 3H)
164	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}N_2O_8$, 521.1924; found, 521.1913	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39 – 8.25 (m, 2H), 7.39 – 7.20 (m, 4H), 7.15 – 7.00 (m, 4H), 6.99 – 6.92 (m, 1H), 5.81 – 5.72 (m, 2H), 5.16 – 5.09 (m, 1H), 4.79 – 4.67 (m, 1H), 4.37 – 4.17 (m, 1H), 3.91 (s, 3H), 2.08 (s, 3H), 1.51 – 1.43 (m, 3H), 1.09 – 0.93 (m, 3H)
165	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}Br_2N_2O_6$, 633.0236; found, 633.0230	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39 (d, J = 6.8 Hz, 1H), 8.31 (d, J = 5.4 Hz, 1H), 7.45 – 7.31 (m, 4H), 7.18 – 7.06 (m, 4H), 7.00 (d, J = 5.5 Hz, 1H), 5.71 (dq, J = 9.5, 6.2 Hz, 1H), 4.65 – 4.46 (m, 1H), 4.00 (d, J = 9.5 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 1.22 (d, J = 6.2 Hz, 3H), 1.02 (d, J = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.05, 168.89, 162.33, 159.47, 146.65, 141.39, 139.74, 139.71, 137.49, 131.97, 131.68, 129.89, 129.78, 121.06, 120.79, 109.84, 72.56, 56.41, 56.30, 47.83, 20.76, 19.09, 17.98

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
166	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{29}N_2O_6S_2$, 517.1467; found, 517.1465	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.51 (d, *J* = 8.1 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.74 (d, *J* = 3.4 Hz, 1H), 6.67 (d, *J* = 2.6 Hz, 1H), 6.60 – 6.42 (m, 2H), 5.53 – 5.39 (m, 1H), 4.72 – 4.58 (m, 1H), 4.44 (d, *J* = 7.1 Hz, 1H), 3.88 (s, 3H), 2.41 – 2.38 (m, 9H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.22 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.07, 168.90, 162.33, 159.44, 146.66, 141.64, 141.56, 140.54, 138.98, 138.92, 137.47, 125.77, 125.08, 124.66, 124.42, 109.76, 74.45, 56.28, 48.01, 47.83, 20.75, 18.64, 18.21, 15.25
167	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}N_2O_6$, 505.2338; found, 505.2345	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 8.0 Hz, 1H), 8.29 (d, *J* = 5.4 Hz, 1H), 7.20 – 7.10 (m, 4H), 7.10 – 6.99 (m, 4H), 6.96 (d, *J* = 5.5 Hz, 1H), 5.77 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.65 – 4.45 (m, 1H), 3.98 (d, *J* = 10.0 Hz, 1H), 3.85 (s, 3H), 2.37 (s, 3H), 2.26 (s, 3H), 2.23 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.93 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.23, 168.90, 162.28, 159.42, 146.67, 141.58, 138.67, 138.57, 137.44, 136.33, 136.02, 129.41, 129.11, 127.94, 127.91, 109.74, 73.44, 57.06, 56.27, 47.91, 20.97, 20.94, 20.76, 19.26, 17.99

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
168	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_6$, 533.2651; found, 533.2655	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.36 (d, *J* = 8.8 Hz, 1H), 8.29 (d, *J* = 5.4 Hz, 1H), 7.19 – 7.12 (m, 4H), 7.10 – 6.98 (m, 4H), 6.94 (d, *J* = 5.5 Hz, 1H), 5.76 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.60 – 4.45 (m, 1H), 3.97 (d, *J* = 9.9 Hz, 1H), 3.84 (s, 3H), 3.00 – 2.85 (m, 1H), 2.26 (s, 3H), 2.24 (s, 3H), 1.34 (d, *J* = 7.0 Hz, 6H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.93 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 174.69, 172.32, 162.28, 159.39, 146.57, 141.98, 138.67, 138.59, 137.60, 136.31, 136.01, 129.40, 129.10, 127.95, 127.93, 109.58, 73.40, 57.05, 56.27, 47.89, 33.95, 20.97, 20.94, 19.25, 18.84, 18.04
169	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}Br_2N_2O_7$, 663.0341; found, 663.0336	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.45 – 7.33 (m, 4H), 7.22 – 7.03 (m, 4H), 6.95 (d, *J* = 5.4 Hz, 1H), 5.83 – 5.61 (m, 1H), 5.72 (s, 2H), 4.56 (p, *J* = 7.3 Hz, 1H), 4.01 (d, *J* = 9.6 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.18, 170.25, 162.91, 160.27, 145.69, 143.97, 142.36, 139.81, 139.71, 131.97, 131.68, 129.87, 129.76, 121.06, 120.77, 109.63, 89.49, 72.51, 56.46, 56.20, 48.06, 20.87, 19.12, 17.81

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
170	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{31}N_2O_7S_2$, 547.1572; found, 547.1585	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.31 (d, *J* = 7.9 Hz, 1H), 8.27 (d, *J* = 5.3 Hz, 1H), 6.94 (d, *J* = 5.4 Hz, 1H), 6.75 (d, *J* = 3.4 Hz, 1H), 6.70 – 6.62 (m, 1H), 6.57 – 6.50 (m, 2H), 5.77 – 5.70 (m, 2H), 5.52 – 5.40 (m, 1H), 4.75 – 4.58 (m, 1H), 4.45 (d, *J* = 7.1 Hz, 1H), 3.90 (s, 3H), 2.40 (d, *J* = 1.2 Hz, 3H), 2.39 (d, *J* = 1.1 Hz, 3H), 2.06 (s, 3H), 1.36 – 1.14 (m, 6H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.17, 170.25, 162.90, 160.26, 145.69, 143.95, 142.56, 141.64, 140.61, 138.96, 138.93, 125.73, 125.07, 124.65, 124.41, 109.55, 89.54, 74.42, 56.18, 48.23, 47.85, 20.87, 18.66, 18.03, 15.24
171	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{35}N_2O_7$, 535.2444; found, 535.2449	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.33 – 8.15 (m, 2H), 7.22 – 7.10 (m, 4H), 7.10 – 6.99 (m, 4H), 6.92 (d, *J* = 5.4 Hz, 1H), 5.84 – 5.69 (m, 3H), 4.55 (p, *J* = 7.3 Hz, 1H), 3.99 (d, *J* = 10.0 Hz, 1H), 3.87 (s, 3H), 2.27 (s, 3H), 2.24 (s, 3H), 2.05 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.95 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.34, 170.24, 162.87, 160.24, 145.70, 143.90, 142.59, 138.70, 138.58, 136.32, 135.99, 129.40, 129.10, 127.93, 127.90, 109.55, 89.51, 73.38, 57.07, 56.17, 48.12, 20.96, 20.93, 20.86, 19.26, 17.81
173	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{28}F_3N_2O_6$, 545.1899; found, 545.1902	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.42 (d, *J* = 7.7 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.60 – 7.50 (m, 2H), 7.47 – 7.37 (m, 2H), 7.34 – 7.13 (m, 5H), 6.99 (d, *J* = 5.4 Hz, 1H), 5.83 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.65 – 4.45 (m, 1H), 4.14 (d, *J* = 9.7 Hz, 1H), 3.88 (s, 3H), 2.38 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -62.56

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
174	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}Cl_2N_2O_6$, 545.1246; found, 545.1244	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.40 (d, *J* = 8.1 Hz, 1H), 8.30 (d, *J* = 5.5 Hz, 1H), 7.31 – 7.12 (m, 8H), 6.99 (d, *J* = 5.5 Hz, 1H), 5.72 (dq, *J* = 9.5, 6.1 Hz, 1H), 4.66 – 4.47 (m, 1H), 4.03 (d, *J* = 9.5 Hz, 1H), 3.88 (s, 3H), 2.38 (s, 3H), 1.22 (d, *J* = 6.1 Hz, 3H), 1.01 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (75 MHz, $CDCl_3$) δ 172.06, 168.91, 162.33, 159.45, 146.66, 141.36, 139.32, 139.27, 137.47, 132.94, 132.69, 129.51, 129.41, 129.01, 128.72, 109.85, 72.70, 56.30, 56.27, 47.83, 20.75, 19.09, 17.98
175	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{30}F_3N_2O_7$, 575.2005; found, 575.2011	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 7.8 Hz, 1H), 7.58 – 7.49 (m, 2H), 7.42 (d, *J* = 8.2 Hz, 2H), 7.35 – 7.12 (m, 5H), 6.95 (d, *J* = 5.4 Hz, 1H), 5.84 (dq, *J* = 9.8, 6.2 Hz, 1H), 5.72 (s, 2H), 4.62 – 4.48 (m, 1H), 4.15 (d, *J* = 9.8 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.93 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -62.57
176	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}Cl_2N_2O_7$, 575.1352; found, 575.1352	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 7.8 Hz, 1H), 7.34 – 7.09 (m, 8H), 6.95 (d, *J* = 5.4 Hz, 1H), 5.81 – 5.58 (m, 3H), 4.67 – 4.44 (m, 1H), 4.04 (d, *J* = 9.5 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (75 MHz, $CDCl_3$) δ 172.19, 170.28, 162.91, 160.27, 145.71, 143.95, 142.32, 139.38, 139.28, 132.94, 132.67, 129.49, 129.40, 129.01, 128.71, 109.64, 89.47, 72.65, 56.32, 56.22, 56.18, 48.05, 20.89, 20.86, 19.12, 17.81

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
178	---	(Thin film) 3387, 2984, 1737, 1673, 1603, 1579, 1506, 1451, 1368, 1304, 1268, 1199, 1159, 1136, 1045, 1007, 969, 825, 779, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}F_2N_2O_6$, 513.1832; found, 513.1833	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.35 (dd, *J* = 4.5, 1.3 Hz, 1H), 8.15 (d, *J* = 7.8 Hz, 1H), 7.52 (dd, *J* = 8.4, 1.4 Hz, 1H), 7.42 (dd, *J* = 8.4, 4.5 Hz, 1H), 7.33 – 7.14 (m, 4H), 7.05 – 6.86 (m, 4H), 5.82 (s, 2H), 5.72 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.59 (p, *J* = 7.3 Hz, 1H), 4.06 (d, *J* = 9.7 Hz, 1H), 2.11 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.01 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.57, -115.97
179	---	(Thin film) 3380, 2985, 1737, 1674, 1603, 1578, 1507, 1473, 1455, 1366, 1312, 1274, 1222, 1200, 1158, 1104, 1043, 1003, 968, 910, 886, 824, 792, 728	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_7$, 557.2094; found, 557.2089	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.23 (d, *J* = 5.3 Hz, 1H), 8.18 (d, *J* = 7.8 Hz, 1H), 7.23 (ddd, *J* = 13.9, 6.9, 2.6 Hz, 4H), 7.05 – 6.84 (m, 5H), 5.78 – 5.66 (m, 3H), 4.56 (p, *J* = 7.3 Hz, 1H), 4.12 (q, *J* = 7.0 Hz, 2H), 4.05 (d, *J* = 9.7 Hz, 1H), 2.06 (s, 3H), 1.47 (t, *J* = 7.0 Hz, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.60, -115.98

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
180	---	(Thin film) 3404, 2983, 1737, 1652, 1602, 1508, 1482, 1453, 1369, 1305, 1222, 1197, 1159, 1137, 1106, 1088, 1049, 1010, 976, 911, 828, 792, 759, 732	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{28}F_2NO_6$, 512.1879; found, 512.1889	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.13 (dd, *J* = 7.9, 1.8 Hz, 1H), 8.06 (d, *J* = 6.9 Hz, 1H), 7.45 (ddd, *J* = 8.5, 7.4, 1.8 Hz, 1H), 7.29 – 7.05 (m, 6H), 7.04 – 6.90 (m, 4H), 5.92 (d, *J* = 6.4 Hz, 1H), 5.83 (d, *J* = 6.4 Hz, 1H), 5.73 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.57 (p, *J* = 7.1 Hz, 1H), 4.06 (d, *J* = 9.7 Hz, 1H), 2.14 (s, 3H), 1.25 (d, *J* = 6.0 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.62, -116.01
181	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{40}H_{39}N_2O_7$, 659.2752; found, 659.2758	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.24 (t, *J* = 7.7 Hz, 2H), 7.57 – 7.49 (m, 8H), 7.45 – 7.37 (m, 8H), 7.32 (dt, *J* = 9.3, 5.8 Hz, 2H), 6.90 (d, *J* = 5.4 Hz, 1H), 5.89 (dq, *J* = 12.4, 6.1 Hz, 1H), 5.71 (s, 2H), 4.58 (p, *J* = 7.3 Hz, 1H), 4.16 (d, *J* = 10.0 Hz, 1H), 3.88 (s, 3H), 2.05 (s, 3H), 1.33 (d, *J* = 6.1 Hz, 3H), 0.96 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.38, 170.26, 162.88, 160.23, 145.68, 143.94, 142.52, 140.73, 140.61, 140.52, 140.23, 139.89, 139.63, 128.74, 128.71, 128.55, 127.55, 127.26, 127.17, 126.99, 126.96, 109.50, 89.54, 73.27, 57.25, 56.15, 48.12, 20.87, 19.34, 17.79

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
182	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{39}H_{37}N_2O_6$, 629.2646; found, 629.2651	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 5.1 Hz, 1H), 8.29 (d, *J* = 5.4 Hz, 1H), 7.57 – 7.47 (m, 8H), 7.41 (dd, *J* = 9.3, 6.0 Hz, 8H), 7.32 (dd, *J* = 12.1, 7.1 Hz, 2H), 6.94 (d, *J* = 5.5 Hz, 1H), 5.88 (dq, *J* = 12.3, 6.1 Hz, 1H), 4.57 (p, *J* = 7.2 Hz, 1H), 4.15 (d, *J* = 10.0 Hz, 1H), 3.87 (s, 3H), 2.38 (s, 3H), 1.31 (d, *J* = 6.1 Hz, 3H), 0.95 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.24, 168.91, 162.29, 159.40, 146.63, 141.52, 140.73, 140.62, 140.47, 140.23, 139.88, 139.62, 137.45, 128.75, 128.71, 128.56, 127.54, 127.25, 127.16, 127.00, 126.96, 109.69, 73.30, 57.22, 56.25, 47.90, 20.75, 19.31, 17.97
183	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}F_2N_2O_7$, 530.1813; found, 530.1809	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.28 (d, *J* = 5.4 Hz, 1H), 8.15 (t, *J* = 5.6 Hz, 1H), 7.25 – 7.15 (m, 4H), 7.03 – 6.89 (m, 5H), 5.75 – 5.66 (m, 3H), 4.11 (dd, *J* = 18.3, 5.7 Hz, 1H), 4.04 (d, *J* = 9.1 Hz, 1H), 3.92 (s, 3H), 3.89 (dd, *J* = 18.3, 5.4 Hz, 1H), 2.06 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 170.32, 169.11, 161.72 (d, *J* = 246.0 Hz), 161.62 (d, *J* = 245.4 Hz), 160.31, 145.73, 144.02, 142.27, 136.67 (d, *J* = 26.2 Hz), 129.72, 129.66, 115.68 (d, *J* = 21.5 Hz), 115.41 (d, *J* = 22.1 Hz), 109.65, 89.48, 73.37, 56.16, 55.69, 41.33, 20.87 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.60 (m), -115.94 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
184	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_7$, 558.2121; found, 558.2133	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 8.4 Hz, 1H), 7.28 – 7.18 (m, 4H), 7.01 – 6.90 (m, 5H), 5.77 – 5.65 (m, 3H), 4.56 (ddd, *J* = 8.4, 6.7, 5.3 Hz, 1H), 4.05 (d, *J* = 9.6 Hz, 1H), 3.91 (s, 3H), 2.06 (s, 3H), 1.63 – 1.52 (m, 1H), 1.40 – 1.29 (m, 1H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.61 (t, *J* = 7.4 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.56, 170.27, 163.06, 161.72 (d, *J* = 246.0 Hz), 161.66 (d, *J* = 245.2 Hz), 160.32, 145.66, 144.03, 142.38, 136.92, 129.60 (d, *J* = 10.6 Hz), 129.54 (d, *J* = 10.4 Hz), 115.63 (d, *J* = 35.4 Hz), 115.46 (d, *J* = 35.4 Hz), 109.55, 89.59, 73.22, 56.19, 56.02, 53.26, 25.24, 20.87, 19.22, 9.16 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.59 – -115.70 (m), -116.06 (ddd, *J* = 14.0, 8.7, 5.3 Hz)
185	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_7$, 572.2283; found, 572.2286	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.29 – 8.21 (m, 2H), 7.29 – 7.14 (m, 4H), 7.00 – 6.88 (m, 5H), 5.85 – 5.51 (m, 3H), 4.55 (dd, *J* = 9.3, 4.6 Hz, 1H), 4.05 (d, *J* = 9.6 Hz, 1H), 3.91 (s, 3H), 2.06 (s, 3H), 1.87 – 1.75 (m, 1H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.78 (d, *J* = 6.9 Hz, 3H), 0.58 (d, *J* = 6.8 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.17, 170.27, 163.21, 161.70 (d, *J* = 246.1 Hz), 161.66 (d, *J* = 245.3 Hz), 160.38, 145.62, 144.11, 142.32, 136.98, 129.54, 129.54 (d, *J* = 14.9 Hz), 115.63 (d, *J* = 32.3 Hz), 115.46 (d, *J* = 32.3 Hz), 109.54, 89.63, 73.25, 57.14, 56.19, 55.97, 31.09, 20.88, 19.27, 19.10, 17.06 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.69 (ddd, *J* = 13.8, 8.8, 5.5 Hz), -116.12 (ddd, *J* = 13.8, 8.7, 5.5 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
186	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{35}F_2N_2O_7$, 585.2407; found, 585.2409	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.25 (d, *J* = 5.4 Hz, 1H), 8.07 (d, *J* = 8.8 Hz, 1H), 7.28 – 7.18 (m, 4H), 7.01 – 6.91 (m, 5H), 5.74 – 5.66 (m, 3H), 4.57 (ddd, *J* = 9.6, 8.7, 5.1 Hz, 1H), 4.04 (d, *J* = 9.9 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.41 – 1.31 (m, 1H), 1.23 (d, *J* = 6.1 Hz, 3H), 1.22 – 1.17 (m, 1H), 1.04 – 0.96 (m, 1H), 0.79 (d, *J* = 6.5 Hz, 3H), 0.74 (d, *J* = 6.6 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.38, 170.29, 163.06, 161.73 (d, *J* = 245.7 Hz), 161.67 (d, *J* = 245.4 Hz), 160.35, 145.57, 144.14, 142.22, 137.17, 136.90, 129.57 (d, *J* = 12.1 Hz), 129.50 (d, *J* = 11.8 Hz), 115.64 (d, *J* = 35.1 Hz), 115.47 (d, *J* = 35.0 Hz), 109.55, 89.60, 73.08, 56.20, 56.19, 50.69, 41.20, 24.56, 22.80, 21.63, 20.87, 19.19 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.66 (td, *J* = 9.1, 4.7 Hz), -116.21 (ddd, *J* = 13.9, 8.7, 5.3 Hz)
187	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{25}F_2N_2O_6$, 499.1675; found, 499.1664	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.38 – 8.23 (m, 2H), 7.27 – 7.12 (m, 4H), 7.10 – 6.83 (m, 5H), 5.69 (dq, *J* = 9.1, 6.2 Hz, 1H), 4.13 – 3.95 (m, 2H), 3.92 (s, 4H), 2.39 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 168.98, 168.92, 162.91, 161.71 (d, *J* = 245.8 Hz), 161.62 (d, *J* = 245.4 Hz), 159.51, 146.67, 141.23, 137.55, 136.79, 136.53 (d, *J* = 3.4 Hz), 129.72 (d, *J* = 2.9 Hz), 129.65 (d, *J* = 2.7 Hz), 115.67 (d, *J* = 21.3 Hz), 115.40 (d, *J* = 21.3 Hz), 109.89, 73.42, 56.31, 55.71, 41.17, 20.73, 19.11 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.55 – -115.66 (m), -115.95 (tt, *J* = 8.3, 4.0 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
188	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_6$, 527.1988; found, 527.1981	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.39 (s, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 7.33 – 7.04 (m, 4H), 7.06 – 6.86 (m, 5H), 5.70 (dq, *J* = 9.4, 6.1 Hz, 1H), 4.54 (ddd, *J* = 8.6, 6.5, 5.4 Hz, 1H), 4.04 (d, *J* = 9.4 Hz, 1H), 3.91 (s, 3H), 2.38 (s, 3H), 1.62 – 1.49 (m, 1H), 1.40 – 1.30 (m, 1H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.59 (t, *J* = 7.4 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.41, 168.90, 162.46, 161.71 (d, *J* = 245.9 Hz), 161.66 (d, *J* = 245.4 Hz), 159.46, 146.63, 141.46, 137.48, 136.88, 129.63 (d, *J* = 7.8 Hz), 129.53 (d, *J* = 7.8 Hz), 115.67 (d, *J* = 21.3 Hz), 115.40 (d, *J* = 21.1 Hz), 109.74, 73.25, 56.30, 55.96, 53.02, 25.34, 20.76, 19.20, 9.04 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.62 – -115.72 (m), -116.07 (td, *J* = 9.3, 8.9, 4.1 Hz).
189	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_6$, 541.2145; found, 541.2143	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.35 (s, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.35 – 7.16 (m, 4H), 7.08 – 6.80 (m, 5H), 5.70 (dq, *J* = 9.5, 6.1 Hz, 1H), 4.51 (dd, *J* = 9.5, 4.7 Hz, 1H), 4.04 (d, *J* = 9.5 Hz, 1H), 3.91 (s, 3H), 2.38 (s, 3H), 1.89 – 1.68 (m, 1H), 1.21 (d, *J* = 6.3 Hz, 3H), 0.76 (d, *J* = 6.9 Hz, 3H), 0.58 (d, *J* = 6.9 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.01, 168.88, 162.63, 161.69 (d, *J* = 245.9 Hz), 161.65 (d, *J* = 244.8 Hz), 159.46, 146.61, 141.54, 137.48, 136.97 (d, *J* = 3.3 Hz), 136.88 (d, *J* = 3.4 Hz), 129.65 (d, *J* = 7.9 Hz), 129.52 (d, *J* = 8.0 Hz), 115.66 (d, *J* = 21.3 Hz), 115.41 (d, *J* = 21.3 Hz), 109.71, 73.25, 56.95, 56.30, 55.91, 20.77, 19.25, 18.99, 17.09 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.67 – -115.78 (m), -116.06 – -116.17 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
190	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_6$, 555.2301; found, 555.2292	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.30 (d, *J* = 5.5 Hz, 1H), 8.18 (d, *J* = 8.2 Hz, 1H), 7.35 – 7.13 (m, 4H), 7.04 – 6.80 (m, 5H), 5.68 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.54 (td, *J* = 9.2, 5.2 Hz, 1H), 4.03 (d, *J* = 9.7 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 1.20 (dd, *J* = 16.3, 6.1 Hz, 4H), 1.04 (ddd, *J* = 13.9, 8.7, 5.2 Hz, 1H), 0.91 – 0.81 (m, 1H), 0.78 (d, *J* = 6.4 Hz, 3H), 0.73 (d, *J* = 6.6 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.20, 168.87, 162.46, 161.71 (d, *J* = 245.7 Hz), 161.66 (d, *J* = 245.4 Hz), 159.46, 146.57, 141.50, 137.48, 137.07 (d, *J* = 3.3 Hz), 136.89 (d, *J* = 3.3 Hz), 129.60 (d, *J* = 8.0 Hz), 129.50 (d, *J* = 8.0 Hz), 115.68 (d, *J* = 21.3 Hz), 115.40 (d, *J* = 21.3 Hz), 109.71, 73.08, 56.23, 50.54, 24.54, 22.76, 21.71, 20.76, 19.16 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.59 – -115.77 (m), -116.14 – -116.29 (m)
191	---	(Thin film) 3381, 2937, 1735, 1676, 1492, 1245, 1203, 1042	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{35}N_2O_9$, 567.2335; found, 567.2337	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.32 – 8.19 (m, 2H), 7.47 (dd, *J* = 7.7, 1.8 Hz, 1H), 7.23 (s, 1H), 7.24 – 7.04 (m, 2H), 6.93 (d, *J* = 5.5 Hz, 1H), 6.93 – 6.77 (m, 3H), 6.78 (dd, *J* = 8.3, 1.2 Hz, 1H), 5.95 (dq, *J* = 9.9, 6.2 Hz, 1H), 5.78 – 5.66 (m, 2H), 5.01 (d, *J* = 9.8 Hz, 1H), 4.62 – 4.48 (m, 1H), 3.90 (s, 3H), 3.85 (s, 3H), 3.76 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.95 (d, *J* = 7.2 Hz, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
192	---	(Thin film) 3378, 2938, 1737, 1675, 1583, 1504, 1488, 1202, 1041	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{35}N_2O_9$, 567.2341; found, 567.2337	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 7.26 – 7.14 (m, 1H), 7.16 (t, *J* = 7.9 Hz, 1H), 6.93 (d, *J* = 5.4 Hz, 1H), 6.92 – 6.87 (m, 2H), 6.87 – 6.80 (m, 2H), 6.73 (ddd, *J* = 8.2, 2.6, 0.9 Hz, 1H), 6.69 (ddd, *J* = 8.2, 2.6, 0.9 Hz, 1H), 5.79 (dq, *J* = 9.7, 5.8 Hz, 1H), 5.73 – 5.69 (m, 2H), 4.71 – 4.44 (m, 1H), 3.99 (d, *J* = 10.2 Hz, 1H), 3.90 (s, 3H), 3.77 (s, 3H), 3.76 (s, 3H), 2.06 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 0.94 (d, *J* = 7.2 Hz, 3H)
193	---	(Thin film) 3378, 2983, 1741, 1672, 1575, 1483, 1201, 1002	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{27}Cl_2F_2N_2O_8$, 627.1102; found, 627.1107	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.24 (dt, *J* = 5.4, 1.3 Hz, 1H), 7.99 (d, *J* = 8.1 Hz, 1H), 7.81 (t, *J* = 8.5 Hz, 1H), 7.36 (t, *J* = 8.5 Hz, 1H), 7.19 – 7.10 (m, 1H), 7.07 – 6.98 (m, 1H), 6.99 – 6.86 (m, 3H), 6.14 – 6.04 (m, 1H), 5.70 (d, *J* = 6.4 Hz, 1H), 5.64 (d, *J* = 6.4 Hz, 1H), 4.66 (p, *J* = 7.2 Hz, 1H), 3.92 (s, 3H), 3.82 (s, 1H), 2.07 (s, 3H), 1.35 (d, *J* = 7.2 Hz, 3H), 1.22 (d, *J* = 6.9 Hz, 3H)
194	---	(Thin film) 3380, 2984, 1738, 1675, 1504, 1201, 1003	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{32}F_2N_2O_7$, 571.2257; found, 571.225	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 7.15 – 7.02 (m, 2H), 7.00 – 6.84 (m, 5H), 5.76 – 5.63 (m, 3H), 4.66 – 4.49 (m, 1H), 3.97 (d, *J* = 9.8 Hz, 1H), 3.91 (s, 3H), 2.20 (d, *J* = 1.9 Hz, 3H), 2.18 (d, *J* = 1.8 Hz, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -116.63 (t, *J* = 9.5 Hz), -117.12 (t, *J* = 9.5 Hz)
195	---	(Thin film) 3377, 2983, 1739, 1675, 1501, 1202, 1050	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}Cl_2N_2O_7$, 603.1657; found, 603.1659	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.9 Hz, 1H), 7.25 – 7.20 (m, 2H), 7.17 – 7.02 (m, 4H), 6.94 (d, *J* = 5.4 Hz, 1H), 5.75 – 5.62 (m, 3H), 4.68 – 4.50 (m, 1H), 3.95 (d, *J* = 9.9 Hz, 1H), 3.91 (s, 3H), 2.31 (s, 3H), 2.28 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
196	---	(Thin film) 3379, 2987, 1741, 1673, 1507, 1486, 1453, 1203, 1002	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_8$, 559.1884; found, 559.1886	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.13 (d, *J* = 8.1 Hz, 1H), 7.85 (tt, *J* = 7.6, 1.9 Hz, 1H), 7.47 (tt, *J* = 7.7, 1.8 Hz, 1H), 7.28 – 7.20 (m, 1H), 7.22 – 7.11 (m, 2H), 7.09 – 6.99 (m, 1H), 7.01 – 6.79 (m, 3H), 6.29 – 6.20 (m, 1H), 5.71 (d, *J* = 6.4 Hz, 1H), 5.67 (d, *J* = 6.4 Hz, 1H), 4.75 – 4.57 (m, 1H), 3.91 (s, 3H), 3.48 (d, *J* = 6.1 Hz, 1H), 2.07 (s, 3H), 1.34 – 1.21 (m, 6H)
197	---	(Thin film) 3379, 3282, 2984, 2107, 1738, 1674, 1503, 1202, 1043, 1004	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{31}N_2O_7$, 555.2125; found, 555.2126	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.46 – 7.34 (m, 5H), 7.26 – 7.15 (m, 3H), 6.94 (d, *J* = 5.4 Hz, 1H), 5.87 – 5.68 (m, 3H), 4.62 – 4.48 (m, 1H), 4.07 (d, *J* = 9.8 Hz, 1H), 3.91 (s, 3H), 3.05 (s, 1H), 3.03 (s, 1H), 2.06 (s, 3H), 1.34 – 1.22 (m, 3H), 0.98 (d, *J* = 7.2 Hz, 3H)
198	---	(Thin film) 3379, 2964, 1736, 1675, 1505, 1202, 1042, 1003	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_7$, 563.2753; found, 563.2752	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 7.24 – 7.18 (m, 4H), 7.14 – 7.03 (m, 5H), 6.93 (d, *J* = 5.5 Hz, 1H), 5.87 – 5.69 (m, 3H), 4.53 (p, *J* = 7.3 Hz, 1H), 3.99 (d, *J* = 10.1 Hz, 1H), 3.90 (d, *J* = 1.0 Hz, 3H), 2.68 – 2.48 (m, 4H), 2.06 (d, *J* = 1.1 Hz, 3H), 1.24 (d, *J* = 7.1 Hz, 3H), 1.22 – 1.10 (m, 6H), 0.88 (d, *J* = 7.2 Hz, 2H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
199	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_7$, 525.2032; found, 525.2045	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.3 Hz, 1H), 8.21 (d, *J* = 7.9 Hz, 1H), 7.31 – 7.22 (m, 5H), 7.21 – 7.12 (m, 1H), 7.00 – 6.81 (m, 3H), 5.81 – 5.74 (m, 1H), 5.72 (d, *J* = 0.8 Hz, 2H), 4.54 (p, *J* = 7.2 Hz, 1H), 4.05 (d, *J* = 9.9 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.31, 170.28, 162.87, 161.70 (d, *J* = 245.6 Hz), 160.25, 145.69, 143.97, 142.50, 141.20, 137.03 (d, *J* = 3.3 Hz), 129.60 (d, *J* = 7.8 Hz), 128.59, 128.02, 126.80, 115.60 (d, *J* = 21.3 Hz), 109.52, 89.55, 73.11, 57.04, 56.18, 48.05, 20.87, 19.18, 17.74
201	---	---	ESIMS *m/z* 661.1 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 7.89 (d, *J* = 8.0 Hz, 1H), 7.56 (d, *J* = 2.2 Hz, 1H), 7.48 (d, *J* = 2.2 Hz, 1H), 7.34 (dd, *J* = 8.5, 4.2 Hz, 2H), 7.18 (ddd, *J* = 10.5, 8.4, 2.2 Hz, 2H), 6.97 (d, *J* = 5.4 Hz, 1H), 5.79 (q, *J* = 6.3 Hz, 1H), 5.68 (d, *J* = 6.3 Hz, 1H), 5.61 (d, *J* = 6.4 Hz, 1H), 4.63 – 4.52 (m, 1H), 3.92 (s, 3H), 3.55 (s, 1H), 2.07 (s, 3H), 1.27 (d, *J* = 7.2 Hz, 3H), 1.18 (d, *J* = 6.3 Hz, 3H) ^{13}C NMR (126 MHz, acetone-d_6) δ 166.30, 165.13, 158.33, 155.10, 140.60, 139.16, 138.49, 137.43, 137.10, 127.58, 126.60, 126.48, 125.21, 123.17, 122.62, 119.99, 119.77, 104.55, 84.15, 73.35, 69.04, 51.05, 43.24, 26.40, 15.69, 9.20

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
202	---	---	ESIMS *m/z* 627.1 ($[M]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 7.91 (d, *J* = 8.0 Hz, 1H), 7.33 – 7.27 (m, 3H), 7.21 (dd, *J* = 10.4, 2.1 Hz, 1H), 7.11 (ddd, *J* = 8.5, 2.2, 0.8 Hz, 1H), 7.06 (ddd, *J* = 8.6, 2.1, 0.9 Hz, 1H), 6.97 (d, *J* = 5.4 Hz, 1H), 5.80 (q, *J* = 6.3 Hz, 1H), 5.68 (d, *J* = 6.3 Hz, 1H), 5.61 (d, *J* = 6.3 Hz, 1H), 4.63 – 4.51 (m, 1H), 3.92 (s, 3H), 3.54 (s, 1H), 2.07 (s, 3H), 1.25 (d, *J* = 7.2 Hz, 3H), 1.18 (d, *J* = 6.4 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.43, 170.32, 163.50, 160.30, 157.99 (d, *J* = 249.5 Hz), 157.96 (d, *J* = 249.3 Hz), 145.76, 145.20 (d, *J* = 5.8 Hz), 143.73, 143.09 (d, *J* = 6.1 Hz), 142.58, 130.53 (d, *J* = 3.2 Hz), 122.14 (d, *J* = 3.8 Hz), 121.85 (d, *J* = 3.5 Hz), 120.23 (d, *J* = 17.8 Hz), 120.05 (d, *J* = 17.8 Hz), 114.70 (d, *J* = 22.5 Hz), 114.34 (d, *J* = 23.0 Hz), 109.72, 89.34, 78.60, 74.30, 56.24, 48.39, 30.94, 20.86, 17.51, 14.43
203	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}Cl_2N_2O_7$, 603.1659; found, 603.1666	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.26 – 7.19 (m, 2H), 7.10 (dd, *J* = 8.5, 2.2 Hz, 2H), 7.03 (ddd, *J* = 13.4, 8.2, 2.3 Hz, 2H), 6.94 (d, *J* = 5.5 Hz, 1H), 5.77 – 5.62 (m, 3H), 4.56 (p, *J* = 7.2 Hz, 1H), 3.95 (d, *J* = 10.0 Hz, 1H), 3.91 (s, 3H), 2.33 (s, 3H), 2.31 (s, 3H), 2.06 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.30, 170.28, 162.90, 160.27, 145.70, 143.97, 142.42, 139.64, 139.47, 136.51, 136.11, 133.06, 132.71, 130.74, 130.63, 129.42, 129.12, 126.63, 126.49, 109.57, 89.52, 72.78, 56.44, 56.19, 48.06, 20.87, 20.17, 20.09, 19.19 17.82

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
204	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}FN_2O_6$, 495.1926; found, 495.1920	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 7.9 Hz, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 7.30 – 7.22 (m, 6H), 7.19 – 7.13 (m, 1H), 7.01 – 6.93 (m, 3H), 5.76 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.58 – 4.49 (m, 1H), 4.05 (d, *J* = 9.9 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.19, 168.90, 162.27, 161.69 (d, *J* = 245.6 Hz), 159.42, 146.64, 141.51, 141.14, 137.46, 137.02 (d, *J* = 3.2 Hz), 129.60 (d, *J* = 7.8 Hz), 128.59, 128.04, 126.81, 115.59 (d, *J* = 21.2 Hz), 109.72, 73.14, 56.99, 56.28, 47.81, 20.74, 19.15, 17.92
206	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}Cl_2N_2O_6$, 573.1554; found, 573.1551	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (s, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.22 (dd, *J* = 17.1, 8.2 Hz, 2H), 7.09 (dd, *J* = 7.2, 2.2 Hz, 2H), 7.06 – 6.96 (m, 3H), 5.69 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.61 – 4.47 (m, 1H), 3.96 – 3.92 (m, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.32 (s, 3H), 2.30 (s, 3H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.16, 168.91, 162.30, 159.45, 146.64, 141.45, 139.58, 137.47, 136.50, 136.10, 133.05, 132.71, 130.73, 130.63, 129.41, 129.12, 126.64, 126.51, 109.76, 72.82, 56.34, 47.83, 20.75, 20.16, 20.09, 19.16, 18.00

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
207	52 – 65	---	HRMS–FAB (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_6$, 555.2301; found, 555.2311	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.30 (d, *J* = 5.5 Hz, 1H), 8.29 (br s, 1H), 7.26 – 7.18 (m, 4H), 7.01 – 6.88 (m, 5H), 5.70 (dq, *J* = 9.5, 6.1 Hz, 1H), 4.64 – 4.48 (m, 1H), 4.04 (d, *J* = 9.5 Hz, 1H), 3.88 (s, 3H), 1.39 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 176.0, 172.3, 162.2, 161.7 (d, *J* = 245.8 Hz), 161.6 (d, *J* = 245.6 Hz), 159.4, 146.5, 142.1, 137.8, 136.9, 136.8, 129.6 (d, *J* = 8.0 Hz), 129.5 (d, *J* = 7.8 Hz), 115.7 (d, *J* = 21.3 Hz), 115.4 (d, *J* = 21.3 Hz), 109.5, 73.0, 56.3, 56.1, 47.8, 39.1, 27.2, 19.1, 18.1 ^{19}F NMR (471 MHz, $CDCl_3$) δ -115.7, -116.0
208	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_6$, 541.2145; found, 541.2159	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.30 (d, *J* = 5.4 Hz, 2H), 7.28 – 7.14 (m, 4H), 7.02 – 6.89 (m, 5H), 5.70 (dq, *J* = 9.5, 6.2 Hz, 1H), 4.63 – 4.48 (m, 1H), 4.04 (d, *J* = 9.5 Hz, 1H), 3.87 (s, 3H), 2.93 (hept, *J* = 7.0 Hz, 1H), 1.34 (d, *J* = 7.0 Hz, 6H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.98 (d, *J* = 7.1 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 174.69, 172.21, 162.69, 162.61, 162.28, 160.74, 160.66, 159.43, 146.54, 141.81, 137.65, 136.86, 136.84, 129.64, 129.57, 129.51, 115.76, 115.59, 115.46, 115.30, 109.61, 73.03, 56.29, 56.07, 47.79, 33.94, 19.12, 18.80, 18.04

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
209	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_7$, 557.209; found, 557.2094	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.45 – 8.25 (m, 2H), 7.30 – 7.15 (m, 4H), 7.05 – 6.86 (m, 5H), 5.71 (dtd, *J* = 9.7, 7.3, 6.8, 5.5 Hz, 1H), 4.53 (tt, *J* = 8.3, 6.6 Hz, 1H), 4.04 (d, *J* = 9.6 Hz, 1H), 3.88 (d, *J* = 1.2 Hz, 3H), 3.80 (td, *J* = 6.6, 1.2 Hz, 2H), 3.39 (d, *J* = 1.2 Hz, 3H), 2.97 (td, *J* = 6.7, 1.3 Hz, 2H), 1.22 (dd, *J* = 6.3, 1.3 Hz, 3H), 0.98 (dd, *J* = 7.2, 1.3 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.13, 169.42, 162.70, 162.61, 162.25, 160.74, 160.66, 159.46, 146.69, 141.44, 137.34, 136.87, 136.84, 136.81, 129.63, 129.56, 129.50, 115.77, 115.60, 115.47, 115.30, 109.78, 73.06, 67.57, 58.76, 56.31, 56.08, 47.81, 34.62, 19.12, 17.99
210	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{29}F_2N_2O_6$, 539.1985; found, 539.1988	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.33 (dd, *J* = 19.6, 5.4 Hz, 2H), 7.25 – 7.16 (m, 4H), 7.03 – 6.88 (m, 5H), 5.70 (dq, *J* = 9.5, 6.2 Hz, 1H), 4.65 – 4.52 (m, 1H), 4.04 (d, *J* = 9.6 Hz, 1H), 3.90 (s, 3H), 1.95 (tt, *J* = 8.0, 4.6 Hz, 1H), 1.25 (dd, *J* = 4.6, 3.1 Hz, 2H), 1.22 (d, *J* = 6.2 Hz, 3H), 1.05 (dt, *J* = 8.1, 3.5 Hz, 2H), 0.98 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.45, 172.20, 162.70, 162.61, 162.26, 160.74, 160.66, 159.50, 146.56, 141.80, 137.45, 136.87, 136.85, 136.83, 129.64, 129.57, 129.50, 115.76, 115.59, 115.47, 115.30, 109.68, 73.03, 56.31, 56.08, 47.75, 19.13, 18.09, 13.00, 9.27

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
211	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_7$, 571.2242; found, 571.225	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.25 (t, *J* = 6.2 Hz, 2H), 7.32 – 7.11 (m, 4H), 7.04 – 6.85 (m, 5H), 5.79 – 5.65 (m, 3H), 4.55 (p, *J* = 7.3 Hz, 1H), 4.04 (d, *J* = 9.7 Hz, 1H), 3.87 (s, 3H), 2.53 (hept, *J* = 7.0 Hz, 1H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.12 (d, *J* = 7.0 Hz, 6H), 0.99 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 176.25, 172.25, 162.88, 162.70, 162.60, 160.74, 160.65, 160.26, 145.54, 144.21, 142.02, 136.94, 136.92, 136.86, 136.83, 129.60, 129.56, 129.54, 129.49, 115.77, 115.60, 115.47, 115.30, 109.53, 89.88, 73.01, 56.13, 48.05, 33.85, 19.15, 18.66, 17.81
212	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_8$, 587.2199; found, 587.2217	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.23 (dd, *J* = 16.1, 6.6 Hz, 2H), 7.25 – 7.18 (m, 4H), 7.02 – 6.89 (m, 5H), 5.82 – 5.66 (m, 3H), 4.54 (p, *J* = 7.3 Hz, 1H), 4.08 (s, 2H), 4.04 (d, *J* = 9.7 Hz, 1H), 3.89 (s, 3H), 3.58 (q, *J* = 7.0 Hz, 2H), 1.25 – 1.20 (m, 6H), 0.99 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.20, 170.05, 162.84, 162.70, 162.61, 160.75, 160.65, 160.21, 145.73, 143.95, 142.23, 136.95, 136.92, 136.85, 136.83, 129.60, 129.56, 129.54, 129.50, 115.78, 115.61, 115.47, 115.30, 109.70, 89.55, 73.04, 67.78, 67.17, 56.23, 56.14, 53.46, 48.04, 19.15, 17.81, 15.00, 14.95

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
213	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_6$, 555.2301; found, 555.2315	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.45 – 8.22 (m, 2H), 7.30 – 7.15 (m, 4H), 7.04 – 6.89 (m, 5H), 5.71 (dq, *J* = 9.5, 6.2 Hz, 1H), 4.63 – 4.45 (m, 1H), 4.04 (d, *J* = 9.6 Hz, 1H), 3.89 (s, 3H), 2.68 (t, *J* = 7.6 Hz, 2H), 1.76 (p, *J* = 7.6 Hz, 2H), 1.54 – 1.37 (m, 2H), 1.22 (d, *J* = 6.1 Hz, 3H), 1.06 – 0.88 (m, 6H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.17, 171.61, 162.70, 162.61, 162.31, 160.74, 160.66, 159.47, 146.56, 141.61, 137.57, 136.87, 136.85, 136.82, 129.63, 129.57, 129.50, 115.76, 115.60, 115.47, 115.30, 109.69, 73.05, 56.26, 56.08, 47.80, 33.64, 29.70, 26.61, 22.20, 19.12, 18.02, 13.76
214	---	(Thin film) 3388, 2970, 2363, 2029, 1738, 1677, 1604, 1508, 1449, 1414, 1366, 1307, 1218, 1203, 1159, 1139, 1113, 1042, 1000, 970, 908, 831, 806, 793, 778, 731, 711, 682, 670, 663	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{26}BrF_2N_2O_6$, 593.0921; found, 593.0925	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.28 (d, *J* = 7.8 Hz, 1H), 8.17 (d, *J* = 4.9 Hz, 1H), 7.68 (d, *J* = 4.9 Hz, 1H), 7.30 – 7.16 (m, 4H), 7.05 – 6.90 (m, 3H), 5.81 – 5.69 (m, 3H), 4.54 (p, *J* = 7.3 Hz, 1H), 4.05 (d, *J* = 9.8 Hz, 1H), 2.09 (s, 3H), 1.59 (s, 1H), 1.31 – 1.21 (m, 3H), 1.00 (d, *J* = 7.2 Hz, 3H)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
215	---	(Thin film) 3380, 2985, 2362, 1769, 1738, 1674, 1609, 1591, 1572, 1513, 1434, 1367, 1310, 1277, 1202, 1175, 1150, 1113, 1051, 1009, 952, 907, 825, 805, 731, 668, 657	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{25}F_4N_2O_6$, 549.1643; found, 549.1655	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.38 (d, *J* = 8.0 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.18 – 6.88 (m, 7H), 5.64 (dq, *J* = 9.5, 6.3 Hz, 1H), 4.64 – 4.47 (m, 1H), 4.00 (d, *J* = 9.3 Hz, 1H), 3.91 (s, 3H), 2.39 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -136.31 (ddd, *J* = 20.1, 11.2, 8.2 Hz), -136.74 (ddd, *J* = 20.3, 11.3, 7.8 Hz), -139.14 – -139.50 (m), -139.70 (dddd, *J* = 21.4, 10.6, 7.7, 4.1 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
216	---	(Thin film) 3375, 2984, 2361, 2132, 1770, 1738, 1676, 1590, 1572, 1499, 1452, 1437, 1367, 1311, 1251, 1199, 1175, 1098, 1061, 1010, 952, 907, 828, 805, 782, 764, 733, 687, 668, 657, 651	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{25}Cl_2F_2N_2O_6$, 581.1052; found, 581.1061	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.38 (d, *J* = 8.3 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.26 (ddd, *J* = 11.5, 7.2, 2.1 Hz, 2H), 7.18 – 6.95 (m, 5H), 5.63 (dq, *J* = 9.3, 6.1 Hz, 1H), 4.65 – 4.49 (m, 1H), 4.00 (d, *J* = 9.4 Hz, 1H), 3.91 (s, 3H), 2.39 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -116.85 – -117.26 (m), -117.29 – -117.50 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
217	---	(Thin film) 3383, 2983, 1771, 1736, 1676, 1591, 1572, 1503, 1451, 1437, 1366, 1311, 1277, 1237, 1201, 1176, 1119, 1099, 1051, 1009, 949, 907, 825, 805, 790, 733, 668, 657	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_6$, 541.2145; found, 541.2156	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.40 (d, *J* = 8.2 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.14 – 6.96 (m, 5H), 6.96 – 6.81 (m, 2H), 5.68 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.53 (dt, *J* = 8.2, 7.1 Hz, 1H), 3.94 (d, *J* = 10.0 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.22 (dd, *J* = 6.7, 1.9 Hz, 6H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.98 (d, *J* = 7.1 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -119.90 – -120.14 (m), -120.50 – -120.65 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
218	---	(Thin film) 3376, 2988, 2363, 1742, 1675, 1609, 1580, 1515, 1454, 1435, 1368, 1310, 1284, 1236, 1203, 1181, 1149, 1120, 1043, 1004, 970, 910, 873, 829, 754, 734	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{27}F_4N_2O_7$, 579.1749; found, 579.1762	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.18 – 6.85 (m, 7H), 5.72 (s, 2H), 5.65 (dq, *J* = 10.5, 6.2 Hz, 1H), 4.58 (p, *J* = 7.3 Hz, 1H), 4.01 (d, *J* = 9.4 Hz, 1H), 3.91 (s, 3H), 2.07 (s, 3H), 1.25 (d, *J* = 5.9 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -136.29 (ddd, *J* = 20.1, 11.2, 8.0 Hz), -136.73 (ddd, *J* = 20.1, 11.3, 8.0 Hz), -139.16 – -139.43 (m), -139.64 – -139.84 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
219	---	(Thin film) 3393, 2986, 2364, 1742, 1676, 1580, 1499, 1454, 1437, 1408, 1367, 1310, 1250, 1202, 1180, 1148, 1101, 1061, 1044, 1004, 972, 911, 829, 732, 720, 687	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{27}Cl_2F_2N_2O_7$, 611.1158; found, 611.1169	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (dd, *J* = 5.4, 1.1 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.35 – 7.19 (m, 2H), 7.20 – 7.01 (m, 4H), 6.96 (dd, *J* = 5.5, 1.1 Hz, 1H), 5.72 (d, *J* = 1.1 Hz, 2H), 5.64 (dddd, *J* = 11.6, 9.1, 5.3, 3.3 Hz, 1H), 4.65 – 4.51 (m, 1H), 4.01 (d, *J* = 9.5 Hz, 1H), 3.92 (d, *J* = 1.1 Hz, 3H), 2.07 (d, *J* = 1.1 Hz, 3H), 1.30 – 1.21 (m, 3H), 1.09 (dd, *J* = 7.1, 1.1 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -116.92 – -117.10 (m), -117.36 – -117.53 (m)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
220	---	(Thin film) 3375, 2986, 1738, 1675, 1579, 1501, 1452, 1437, 1366, 1310, 1275, 1237, 1202, 1180, 1151, 1118, 1101, 1043, 1003, 970, 909, 828, 785, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_7$, 571.2250; found, 571.2265	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.05 (td, *J* = 9.7, 8.2, 4.2 Hz, 4H), 6.98 – 6.82 (m, 3H), 5.78 – 5.54 (m, 3H), 4.63 – 4.48 (m, 1H), 3.95 (d, *J* = 10.1 Hz, 1H), 3.91 (s, 3H), 2.22 (dd, *J* = 6.4, 2.0 Hz, 6H), 2.06 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (471 MHz, $CDCl_3$) δ -120.03 (dt, *J* = 9.7, 5.9 Hz), -120.57 (dd, *J* = 8.8, 5.4 Hz)
221	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{27}Cl_4N_2O_7$, 643.0567; found, 643.0578	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.20 (d, *J* = 7.8 Hz, 1H), 7.42 – 7.29 (m, 4H), 7.12 (dd, *J* = 8.3, 2.2 Hz, 1H), 7.08 (dd, *J* = 8.3, 2.2 Hz, 1H), 6.95 (d, *J* = 5.4 Hz, 1H), 5.72 (s, 2H), 5.70 – 5.58 (m, 1H), 4.58 (p, *J* = 7.2 Hz, 1H), 4.00 (d, *J* = 9.5 Hz, 1H), 3.91 (s, 3H), 2.07 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.10 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.13, 170.29, 162.96, 160.28, 145.71, 144.01, 142.25, 140.34, 133.06, 132.72, 131.62, 131.29, 130.94, 130.67, 130.34, 130.11, 127.32, 109.64, 89.50, 72.10, 56.20, 55.71, 48.07, 20.88, 19.07, 17.85

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
222	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{27}Cl_2F_2N_2O_7$, 611.1158; found, 611.1175	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.20 (d, *J* = 7.8 Hz, 1H), 7.32 (td, *J* = 8.3, 7.6 Hz, 2H), 7.11 – 6.93 (m, 4H), 5.72 (d, *J* = 0.5 Hz, 3H), 5.71 – 5.60 (m, 1H), 4.67 – 4.51 (m, 1H), 4.03 (d, *J* = 9.3 Hz, 1H), 3.91 (s, 3H), 2.07 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.10, 170.29, 162.95, 160.29, 158.15 (d, *J* = 250.2 Hz), 158.01 (d, *J* = 249.8 Hz), 145.70, 144.03, 142.24, 141.03 (d, *J* = 6.5 Hz), 131.08, 130.80, 124.51 (d, *J* = 3.5 Hz), 124.40 (d, *J* = 3.6 Hz), 120.03 (d, *J* = 17.6 Hz), 119.73 (d, *J* = 17.7 Hz), 116.55 (d, *J* = 21.8 Hz), 109.64, 89.51, 72.15, 56.20, 55.99, 48.05, 20.87, 19.03, 17.84
223	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{25}Cl_4N_2O_6$, 613.0461; found, 613.0468	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.80 (d, *J* = 6.6 Hz, 1H), 8.49 (d, *J* = 6.8 Hz, 1H), 7.58 (d, *J* = 6.6 Hz, 1H), 7.40 – 7.27 (m, 4H), 7.14 – 7.01 (m, 2H), 5.67 – 5.52 (m, 1H), 4.61 – 4.46 (m, 1H), 4.18 (s, 3H), 4.10 (d, *J* = 9.9 Hz, 1H), 2.44 (s, 3H), 1.27 (dd, *J* = 6.3, 3.1 Hz, 6H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 174.00, 171.63, 170.13, 140.79, 140.20, 133.07, 132.34, 131.62, 130.97, 130.85, 130.55, 130.04, 127.30, 126.71, 108.57, 72.40, 58.02, 55.48, 34.67, 18.65, 16.34

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
224	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{25}Cl_2F_2N_2O_6$, 581.1052; found, 581.1059	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.88 (d, *J* = 6.7 Hz, 1H), 8.49 (d, *J* = 6.7 Hz, 1H), 7.67 (d, *J* = 6.7 Hz, 1H), 7.38 – 7.28 (m, 2H), 7.09 – 6.95 (m, 4H), 5.68 – 5.49 (m, 1H), 4.59 – 4.48 (m, 1H), 4.21 (s, 3H), 4.12 (d, *J* = 9.8 Hz, 1H), 2.44 (s, 3H), 1.31 – 1.24 (m, 6H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 174.30, 171.60, 170.11, 157.88 (d, *J* = 307.7 Hz), 141.43 (d, *J* = 6.1 Hz), 140.87 (d, *J* = 6.2 Hz), 131.11, 130.71, 124.43, 123.96 (d, *J* = 3.6 Hz), 120.02 (d, *J* = 17.7 Hz), 119.27 (d, *J* = 17.3 Hz), 116.85 (d, *J* = 21.3 Hz), 116.32 (d, *J* = 21.5 Hz), 108.58, 72.61, 58.04, 55.77, 50.35, 31.59, 18.66, 16.35 ^{19}F NMR (471 MHz, $CDCl_3$) δ -113.83 – -113.93 (m), -114.77 (t, *J* = 8.7 Hz)
225	---	---	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_7$, 543.1937; found, 543.1949	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.13 (d, *J* = 7.8 Hz, 1H), 7.25 – 7.14 (m, 4H), 6.93 (dddd, *J* = 18.3, 8.7, 6.6, 2.1 Hz, 5H), 5.75 – 5.61 (m, 3H), 4.64 – 4.42 (m, 1H), 4.05 (d, *J* = 8.9 Hz, 1H), 3.91 (s, 3H), 2.05 (s, 3H), 1.31 (d, *J* = 7.1 Hz, 3H), 1.21 (d, *J* = 6.2 Hz, 3H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.93, 170.30, 162.76, 162.66, 160.62, 160.36, 145.64, 144.15, 142.26, 136.92, 136.54, 129.80, 129.74, 129.69, 129.62, 115.71, 115.54, 115.42, 115.25, 109.59, 89.62, 73.10, 56.21, 55.59, 48.03, 20.86, 18.95, 18.06

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
226	---	(Thin film) 3375, 2982, 1704, 1623, 1527, 1448, 1367, 1346, 1239, 1215, 1165, 1117, 1094, 1043, 863, 803, 786, 729, 679	HRMS-ESI (*m/z*) $[M+Na]^+$ calcd for $C_{23}H_{23}F_6NNaO_4$, 514.1423; found, 514.1428	^{1}H NMR (400 MHz, $CDCl_3$) δ 6.95 – 6.77 (m, 4H), 5.57 (dq, *J* = 9.0, 6.2 Hz, 1H), 4.91 (d, *J* = 7.8 Hz, 1H), 4.27 – 4.13 (m, 1H), 3.93 (d, *J* = 9.0 Hz, 1H), 1.42 (s, 9H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -132.38 (d, *J* = 20.6 Hz), -132.83 (d, *J* = 20.6 Hz), -160.90 (t, *J* = 20.5 Hz), -161.25 (t, *J* = 20.6 Hz)
227	---	(Thin film) 2939, 2031, 1744, 1620, 1526, 1447, 1345, 1234, 1217, 1118, 1041, 1005, 872, 826, 802, 752, 729, 707, 680, 666, 659	HRMS-ESI (*m/z*) $([M+H]^+)$ calcd for $C_{18}H_{16}F_6NO_2$, 392.1080; found, 392.1083	^{1}H NMR (400 MHz, methanol-d_4) δ 7.36 – 7.17 (m, 4H), 5.83 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.26 (d, *J* = 10.1 Hz, 1H), 4.00 (q, *J* = 7.2 Hz, 1H), 3.31 (p, *J* = 1.7 Hz, 3H), 1.28 (d, *J* = 6.2 Hz, 3H), 1.08 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, methanol-d_4) δ -137.08 (d, *J* = 20.0 Hz), -137.39 (d, *J* = 19.9 Hz), -166.29 (t, *J* = 19.9 Hz), -166.61 (t, *J* = 19.9 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
228	---	(Thin film) 3373, 2942, 1738, 1649, 1622, 1577, 1525, 1481, 1446, 1344, 1262, 1239, 1214, 1148, 1117, 1094, 1040, 984, 954, 909, 849, 801, 727, 678	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{21}F_6N_2O_5$, 543.1349; found, 543.1362	^{1}H NMR (400 MHz, $CDCl_3$) δ 11.93 (s, 1H), 8.29 (d, *J* = 7.9 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 6.94 – 6.77 (m, 5H), 5.58 (dq, *J* = 9.0, 6.2 Hz, 1H), 4.65 – 4.49 (m, 1H), 3.94 (d, *J* = 5.5 Hz, 4H), 1.25 (dd, *J* = 9.4, 6.7 Hz, 6H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -132.34 (d, *J* = 20.7 Hz), -132.74 (d, *J* = 20.5 Hz), -160.82 (t, *J* = 20.5 Hz), -161.08 (t, *J* = 20.5 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
229	---	(Thin film) 3384, 2985, 1770, 1741, 1676, 1622, 1592, 1572, 1527, 1447, 1368, 1345, 1312, 1237, 1199, 1176, 1117, 1095, 1042, 1010, 954, 909, 846, 828, 803, 729, 680	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{23}F_6N_2O_6$, 585.1455; found, 585.1464	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.37 (d, *J* = 7.6 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.01 (d, *J* = 5.5 Hz, 1H), 6.88 (dd, *J* = 8.1, 6.3 Hz, 2H), 6.82 (dd, *J* = 8.1, 6.2 Hz, 2H), 5.56 (dq, *J* = 8.7, 6.2 Hz, 1H), 4.65 – 4.50 (m, 1H), 3.94 (d, *J* = 8.8 Hz, 1H), 3.91 (s, 3H), 2.38 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.18 (d, *J* = 7.2 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -132.51 (d, *J* = 20.5 Hz), -132.94 (d, *J* = 20.4 Hz), -161.06 (t, *J* = 20.5 Hz), -161.30 (t, *J* = 20.6 Hz)

Cmpd. No.	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
230	---	(Thin film) 3384, 2987, 1743, 1675, 1622, 1579, 1526, 1506, 1447, 1366, 1344, 1311, 1237, 1201, 1180, 1149, 1117, 1101, 1040, 1003, 971, 911, 830, 803, 728, 679	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{25}F_6N_2O_7$, 615.1560; found, 615.1570	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.20 (d, *J* = 7.7 Hz, 1H), 6.96 (d, *J* = 5.4 Hz, 1H), 6.90 (dd, *J* = 8.2, 6.3 Hz, 2H), 6.84 (dd, *J* = 8.0, 6.2 Hz, 2H), 5.72 (d, *J* = 1.0 Hz, 2H), 5.58 (dq, *J* = 8.9, 6.2 Hz, 1H), 4.59 (p, *J* = 7.3 Hz, 1H), 3.96 (d, *J* = 8.8 Hz, 1H), 3.92 (s, 3H), 2.07 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.17 (d, *J* = 7.3 Hz, 3H) ^{19}F NMR (376 MHz, $CDCl_3$) δ -132.49 (d, *J* = 20.7 Hz), -132.92 (d, *J* = 20.6 Hz), -161.02 (t, *J* = 20.6 Hz), -161.33 (t, *J* = 20.6 Hz)
232	---	---	ESIMS *m/z* 320 ($[M+H]^+$)	---
233	---	---	ESIMS *m/z* 420 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.21 (ddd, *J* = 11.8, 8.4, 5.2 Hz, 4H), 6.98 (td, *J* = 8.6, 5.6 Hz, 4H), 5.67 (dq, *J* = 9.2, 6.2 Hz, 1H), 4.80 (d, *J* = 7.8 Hz, 1H), 4.06 (dd, *J* = 21.8, 8.4 Hz, 2H), 1.43 (s, 9H), 1.18 (dd, *J* = 12.5, 6.7 Hz, 6H) ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.42, 162.70, 162.62, 160.74, 160.67, 136.89, 136.87, 129.74, 129.67, 129.61, 115.76, 115.59, 115.47, 115.30, 79.79, 72.77, 55.76, 49.40, 30.93, 28.30, 19.00, 18.30

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
234	12886269		(Thin film) 3367, 2979, 1708, 1495, 1162, 1049, 731	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{25}H_{31}F_2NNaO_4$, 470.2113; found, 470.2110	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.25 – 7.17 (m, 1H), 7.14 (dd, *J* = 8.4, 5.8 Hz, 1H), 6.91 – 6.76 (m, 4H), 5.60 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.94 (d, *J* = 8.0 Hz, 1H), 4.42 (d, *J* = 9.8 Hz, 1H), 4.12 (qd, *J* = 7.2, 2.5 Hz, 1H), 2.37 (s, 3H), 2.32 (s, 3H), 1.42 (s, 9H), 1.29 (d, *J* = 6.1 Hz, 3H), 0.88 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.52, -117.01.
235	12886271		(Thin film) 3440, 2963, 1708, 1365, 1164, 1051, 908, 731	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{31}H_{45}NNaO_4$, 518.3241; found, 518.3245	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 – 7.17 (m, 8H), 5.77 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.97 (d, *J* = 7.9 Hz, 1H), 4.10 (dq, *J* = 14.6, 7.2 Hz, 1H), 3.95 (d, *J* = 10.3 Hz, 1H), 1.41 (s, 9H), 1.26 (s, 9H), 1.25 – 1.20 (m, 12H), 0.64 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.88, 154.92, 149.54, 149.34, 138.80, 138.25, 127.65, 127.61, 125.59, 125.29, 79.54, 73.50, 57.27, 49.13, 34.34, 34.29, 31.30, 28.31, 19.36, 17.73.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
236	1286273		(Thin film) 3373, 2960, 1711, 1163, 1050, 731	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{29}H_{41}NNaO_4$, 490.2928; found, 490.2931	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.24 – 7.17 (m, 4H), 7.16 – 7.05 (m, 4H), 5.76 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.97 (d, *J* = 7.9 Hz, 1H), 4.09 (dq, *J* = 17.8, 7.3 Hz, 1H), 3.95 (d, *J* = 10.3 Hz, 1H), 2.82 (dhept, *J* = 9.4, 6.9 Hz, 2H), 1.41 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 1.17 (dd, *J* = 11.6, 6.9 Hz, 12H), 0.67 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.87, 154.93, 147.27, 147.10, 139.20, 138.70, 127.91, 127.88, 126.75, 126.44, 79.54, 73.45, 57.42, 49.16, 33.64, 33.60, 28.31, 24.00, 23.97, 23.91, 19.35, 17.79.
237	1286274		(Thin film) 3364, 2976, 1712, 1501, 1450, 1162, 1052, 731	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{27}H_{37}NNaO_4$, 462.2615; found, 462.2623	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.16 – 6.89 (m, 6H), 5.73 (dq, *J* = 10.2, 6.1 Hz, 1H), 5.04 – 4.90 (m, 1H), 4.19 – 4.02 (m, 1H), 3.88 (d, *J* = 10.3 Hz, 1H), 2.17 (dd, *J* = 10.4, 9.0 Hz, 12H), 1.41 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.79 (d, *J* = 7.1 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
238	1268873[illegible]			ESIMS *m/z* 442 ($[M+H]^{+}$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.23 (ddd, *J* = 16.6, 8.5, 5.3 Hz, 4H), 6.97 (td, *J* = 8.7, 2.2 Hz, 4H), 5.69 (dq, *J* = 9.1, 6.2 Hz, 1H), 4.93 (d, *J* = 7.3 Hz, 1H), 4.08 (dd, *J* = 21.8, 8.3 Hz, 2H), 1.43 (s, 9H), 1.18 (dd, *J* = 13.2, 6.7 Hz, 6H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.40, 162.91, 162.84, 160.46, 160.40, 154.90, 136.97, 136.94, 136.66, 129.81, 129.73, 129.69, 129.61, 129.53, 115.76, 115.71, 115.55, 115.50, 115.43, 115.22, 79.65, 77.45, 77.13, 76.81, 72.71, 55.71, 49.44, 28.25, 18.92, 18.10.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
239	1253891-21			ESIMS *m/z* 420 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.23 (ddd, *J* = 15.9, 8.7, 5.4 Hz, 4H), 6.97 (dtd, *J* = 8.7, 6.4, 2.1 Hz, 4H), 5.71 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.98 (d, *J* = 7.8 Hz, 1H), 4.14 (dq, *J* = 14.9, 7.6 Hz, 1H), 4.03 (d, *J* = 9.8 Hz, 1H), 1.42 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.84 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.75, 162.96, 162.88, 160.51, 160.43, 154.94, 137.01, 136.97, 136.86, 136.82, 129.58, 129.53, 129.51, 129.45, 115.80, 115.59, 115.49, 115.28, 79.71, 72.86, 56.20, 49.18, 28.28, 19.17, 18.02.
240	1253916-68		(Thin film) 3355, 2978, 1711, 1599, 1500, 1162, 954	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{25}H_{31}F_2NNaO_6$, 502.2012; found, 502.2021	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.34 (dd, *J* = 8.6, 6.7 Hz, 1H), 7.12 (dd, *J* = 8.7, 6.7 Hz, 1H), 6.64 – 6.44 (m, 4H), 5.85 (dq, *J* = 9.5, 6.1 Hz, 1H), 4.96 (d, *J* = 7.8 Hz, 1H), 4.81 (d, *J* = 9.8 Hz, 1H), 4.23 – 4.02 (m, 1H), 3.82 (s, 3H), 3.74 (s, 3H), 1.42 (s, 9H), 1.20 (d, *J* = 6.2 Hz, 3H), 0.88 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.46, -113.83.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
241	125137781			ESIMS *m/z* 398 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 - 7.13 (m, 10H), 5.83 (q, *J* = 6.4 Hz, 1H), 5.00 (d, *J* = 5.4 Hz, 1H), 4.26 - 4.12 (m, 1H), 1.73 (s, 3H), 1.41 (s, 9H), 1.15 (d, *J* = 6.3 Hz, 3H), 0.98 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.77, 154.93, 146.56, 145.15, 128.16, 128.10, 127.92, 127.40, 126.28, 126.14, 79.69, 75.78, 50.38, 49.39, 28.31, 23.89, 18.37, 15.98.
242	125138327		(Thin film) 3375, 2980, 2934, 2229, 1739, 1708, 1605, 1504	ESIMS *m/z* 434 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.65 – 7.56 (m, 4H), 7.43 – 7.33 (m, 4H), 5.85 – 5.73 (m, 1H), 4.87 (d, *J* = 7.9 Hz, 1H), 4.19 (dd, *J* = 9.3, 2.7 Hz, 1H), 4.17 – 4.01 (m, 1H), 1.42 (s, 9H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.85 (d, *J* = 7.2 Hz, 3H).
243	125138331		(Thin film) 3357, 2982, 1709, 1617, 1455	ESIMS *m/z* 520 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.56 (t, *J* = 8.1 Hz, 4H), 7.44 – 7.36 (m, 4H), 5.89 – 5.76 (m, 1H), 4.89 (d, *J* = 7.8 Hz, 1H), 4.19 (d, *J* = 9.8 Hz, 1H), 4.12 (t, *J* = 7.5 Hz, 1H), 1.41 (s, 9H), 1.26 (d, *J* = 6.2 Hz, 3H), 0.79 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
244	125135745		(Thin film) 3361, 2978, 1709, 1494, 1450, 1365, 1162, 1050, 1029, 731, 701	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{23}H_{30}NO_4$, 384.2169; found, 384.2169	1:1 mixture of diastereomers. ^{1}H NMR (500 MHz, $CDCl_3$) δ 7.32 – 7.23 (m, 8H), 7.22 – 7.13 (m, 2H), 5.84 – 5.72 (m, 1H), 4.93 (d, *J* = 7.9 Hz, 1H), 4.77 (d, *J* = 6.2 Hz, 1H), 4.15 – 4.00 (m, 2H), 1.42 (s, 9H), 1.24 (d, *J* = 6.3 Hz, 3H), 1.22 (d, *J* = 6.0 Hz, 3H), 1.11 (d, *J* = 7.2 Hz, 3H), 0.76 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.83, 172.30, 154.93, 141.50, 141.26, 128.77, 128.73, 128.49, 128.46, 128.23, 128.20, 128.08, 128.05, 126.90, 126.87, 126.66, 79.64, 73.11, 73.03, 57.97, 57.54, 49.46, 49.17, 34.67, 28.32, 25.28, 20.70, 19.30, 19.10, 18.31, 18.00.
245	125135879		(Thin film) 3374, 2977, 1711, 1592, 1489, 1247, 1163, 1029	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{25}H_{31}Cl_2NNaO_6$, 534.1421; found, 534.1427	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 (d, *J* = 8.2 Hz, 1H), 7.09 (d, *J* = 8.1 Hz, 1H), 6.87 (dd, *J* = 8.2, 2.0 Hz, 1H), 6.83 (dd, *J* = 8.1, 2.0 Hz, 1H), 6.79 (dd, *J* = 14.8, 2.0 Hz, 2H), 5.84 (dq, *J* = 12.4, 6.2 Hz, 1H), 4.95 (d, *J* = 7.3 Hz, 1H), 4.81 (d, *J* = 9.7 Hz, 1H), 4.26 – 4.01 (m, 1H), 3.82 (s, 3H), 3.74 (s, 3H), 1.42 (s, 9H), 1.20 (d, *J* = 6.1 Hz, 3H), 0.89 (d, *J* = 7.2 Hz, 3H)

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
246	1261668693		(Thin film) 3360, 2980, 1710, 1598, 1500, 1274, 1160, 1040, 990, 821	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{27}H_{35}F_2NNaO_6$, 530.2325; found, 530.2336	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 (dd, *J* = 8.5, 6.8 Hz, 1H), 7.14 (dd, *J* = 8.5, 6.8 Hz, 1H), 6.61 – 6.43 (m, 4H), 5.87 (dq, *J* = 12.6, 6.3 Hz, 1H), 4.97 (d, *J* = 6.9 Hz, 1H), 4.80 (d, *J* = 10.1 Hz, 1H), 4.21 – 4.07 (m, 1H), 4.06 – 3.78 (m, 4H), 1.56 – 1.34 (m, 15H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.72, -114.20.
247	1261668697		(Thin film) 3358, 2979, 1711, 1592, 1491, 1247, 1162, 1042	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{27}H_{35}Cl_2NNaO_6$, 562.1734; found, 562.1737	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.27 (d, *J* = 8.1 Hz, 1H), 7.10 (d, *J* = 8.2 Hz, 1H), 6.84 (dd, *J* = 5.6, 2.6 Hz, 1H), 6.81 (dd, *J* = 8.2, 2.0 Hz, 1H), 6.75 (dd, *J* = 14.9, 2.0 Hz, 2H), 5.86 (dq, *J* = 12.2, 6.1 Hz, 1H), 4.98 (d, *J* = 6.9 Hz, 1H), 4.80 (d, *J* = 10.0 Hz, 1H), 4.23 – 4.07 (m, 1H), 4.07 – 3.75 (m, 4H), 1.52 – 1.34 (m, 15H), 1.21 (d, *J* = 6.2 Hz, 3H), 0.91 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
248	1231.6889		(Thin film) 3360, 2977, 1712, 1504, 1259, 1161, 1044	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{29}H_{41}NNaO_6$, 522.2826; found, 522.2819	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.25 (d, *J* = 7.7 Hz, 1H), 7.12 (d, *J* = 7.8 Hz, 1H), 6.69 – 6.52 (m, 4H), 5.89 (dq, *J* = 12.3, 6.1 Hz, 1H), 5.03 (d, *J* = 6.7 Hz, 1H), 4.88 (d, *J* = 10.2 Hz, 1H), 4.10 (q, *J* = 12.8, 9.8 Hz, 1H), 4.05 – 3.78 (m, 4H), 2.26 (s, 3H), 2.24 (s, 3H), 1.53 – 1.33 (m, 15H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.86 (d, *J* = 7.1 Hz, 3H).
249	1231.6961			ESIMS *m/z* 528 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.02 – 7.89 (m, 4H), 7.40 – 7.29 (m, 4H), 5.89 – 5.75 (m, 1H), 4.91 (d, *J* = 8.0 Hz, 1H), 4.35 (q, *J* = 7.1 Hz, 2H), 4.34 (q, *J* = 7.1 Hz, 2H), 4.18 (d, *J* = 9.9 Hz, 1H), 4.16 – 4.03 (m, 1H), 1.41 (s, 9H), 1.37 (t, *J* = 7.1 Hz, 6H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.81 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.71, 172.69, 166.18, 166.10, 145.69, 145.36, 130.18, 129.91, 129.56, 129.31, 128.25, 128.12, 72.36, 60.98, 60.95, 57.67, 28.29, 19.18, 18.09, 14.29, 14.28.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
250	123181181		(Thin film) 3378, 2979, 1707, 1592, 1453, 1134, 1050, 731	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{25}H_{31}F_2NNaO_6$, 502.2012; found, 502.2022	^{1}H NMR (400 MHz, $CDCl_3$) δ 6.65 – 6.51 (m, 4H), 6.46 (tt, *J* = 10.3, 2.3 Hz, 2H), 5.67 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.98 (d, *J* = 7.9 Hz, 1H), 4.14 (dd, *J* = 10.5, 4.8 Hz, 1H), 3.92 (d, *J* = 9.9 Hz, 1H), 3.76 (s, 3H), 3.75 (s, 3H), 1.42 (s, 9H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.88 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -110.64, -111.21.
251	123181183		(Thin film) 3375, 2978, 1708, 1593, 1456, 1149, 1059, 729	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{27}H_{37}NNaO_8$, 526.2411; found, 526.2409	^{1}H NMR (400 MHz, $CDCl_3$) δ 6.45 (dd, *J* = 4.5, 2.2 Hz, 4H), 6.28 (dt, *J* = 13.7, 2.2 Hz, 2H), 5.73 (dq, *J* = 10.3, 6.1 Hz, 1H), 5.00 (d, *J* = 7.9 Hz, 1H), 4.12 (tt, *J* = 7.1, 3.3 Hz, 1H), 3.87 (d, *J* = 10.4 Hz, 1H), 3.75 (s, 6H), 3.73 (s, 6H), 1.42 (s, 9H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.84 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.84, 160.97, 160.78, 154.94, 143.51, 143.22, 106.45, 106.20, 98.58, 98.44, 79.63, 72.69, 58.27, 55.28, 55.26, 49.25, 28.31, 19.27, 18.07.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
252	123181189		(Thin film) 3370, 2978, 1708, 1594, 1454, 1292, 1153, 1051, 729	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{27}H_{37}NNaO_6$, 494.2513; found, 494.2510	^{1}H NMR (400 MHz, $CDCl_3$) δ 6.69 (s, 2H), 6.66 – 6.62 (m, 2H), 6.54 (s, 1H), 6.50 (s, 1H), 5.72 (dq, *J* = 10.4, 6.1 Hz, 1H), 5.00 (d, *J* = 7.9 Hz, 1H), 4.22 – 4.00 (m, 1H), 3.86 (d, *J* = 10.4 Hz, 1H), 3.74 (s, 3H), 3.73 (s, 3H), 2.28 (s, 3H), 2.25 (s, 3H), 1.41 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.80 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.85, 159.78, 159.65, 154.93, 142.79, 142.49, 139.72, 139.28, 121.29, 112.72, 112.69, 111.34, 110.84, 79.59, 72.99, 57.93, 55.12, 55.11, 49.24, 28.32, 21.65, 21.58, 19.31, 18.02.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
253	12318131		(Thin film) 3377, 2978, 1711, 1508, 1252, 1163, 1041, 732	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{27}H_{37}NNaO_6$, 494.2513; found, 494.2493	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.00 (ddd, *J* = 13.3, 7.6, 0.9 Hz, 2H), 6.85 – 6.68 (m, 4H), 5.78 (dq, *J* = 10.3, 6.1 Hz, 1H), 5.11 – 4.82 (m, 1H), 4.12 (qd, *J* = 7.1, 2.3 Hz, 1H), 3.94 (d, *J* = 10.2 Hz, 1H), 3.79 (s, 3H), 3.78 (s, 3H), 2.14 (s, 3H), 2.12 (s, 3H), 1.41 (s, 9H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.80 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.87, 157.86, 157.65, 154.93, 140.45, 140.25, 130.75, 130.47, 125.22, 124.79, 119.74, 119.69, 109.82, 109.77, 79.64, 73.09, 57.95, 55.27, 55.25, 49.29, 28.32, 19.35, 18.06, 15.80, 15.75.
254	12318183		(Thin film) 3377, 2979, 1706, 1513, 1274, 1161, 1025, 729	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{25}H_{31}F_2NNaO_6$, 502.2012; found, 502.2008	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.06 – 6.92 (m, 4H), 6.88 (td, *J* = 8.7, 4.6 Hz, 2H), 5.63 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.99 (d, *J* = 7.9 Hz, 1H), 4.13 (p, *J* = 6.9 Hz, 1H), 3.91 (d, *J* = 9.6 Hz, 1H), 3.84 (s, 3H), 3.83 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -134.14, -134.59.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
255	12518196		(Thin film) 3376, 2978, 1711, 1502, 1247, 1163, 1052, 730	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{27}H_{37}NNaO_6$, 494.2513; found, 494.2515	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.05 (ddd, *J* = 7.8, 4.8, 2.3 Hz, 2H), 7.01 (d, *J* = 2.2 Hz, 2H), 6.70 (t, *J* = 8.8 Hz, 2H), 5.68 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.98 (d, *J* = 7.9 Hz, 1H), 4.12 (ddp, *J* = 11.8, 7.9, 4.3 Hz, 1H), 3.85 (d, *J* = 10.2 Hz, 1H), 3.76 (s, 3H), 3.74 (s, 3H), 2.16 (s, 3H), 2.14 (s, 3H), 1.41 (s, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.87, 156.53, 156.36, 154.94, 133.77, 133.55, 130.40, 130.30, 126.81, 126.38, 126.06, 125.86, 110.05, 109.91, 79.58, 73.47, 56.31, 55.32, 55.27, 49.28, 28.32, 19.34, 18.15, 16.32, 16.24.
256	12518197		(Thin film) 3355, 2978, 1712, 1497, 1223, 1161, 1047, 730	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{27}H_{37}NNaO_8$, 526.2411; found, 526.2405	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.04 (d, *J* = 3.0 Hz, 1H), 6.86 (d, *J* = 3.0 Hz, 1H), 6.74 (dd, *J* = 19.1, 8.9 Hz, 2H), 6.66 (ddd, *J* = 9.1, 6.3, 3.0 Hz, 2H), 5.88 (dq, *J* = 10.0, 6.2 Hz, 1H), 5.03 (d, *J* = 7.8 Hz, 1H), 4.91 (d, *J* = 10.1 Hz, 1H), 4.12 (m, 1H), 3.80 (s, 3H), 3.73 (s, 3H), 3.71 (s, 3H), 3.70 (s, 3H), 1.41 (s, 9H), 1.30 – 1.19 (m, 3H), 0.86 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
257	123183193		(Thin film) 3364, 2978, 1710, 1497, 1245, 1160, 1045, 730	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{27}H_{37}NNaO_6$, 494.2513; found, 494.2507	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.05 (d, *J* = 8.4 Hz, 1H), 6.99 (d, *J* = 8.3 Hz, 1H), 6.88 (d, *J* = 2.7 Hz, 1H), 6.81 (d, *J* = 2.7 Hz, 1H), 6.63 (ddd, *J* = 15.9, 8.3, 2.7 Hz, 2H), 5.63 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.99 (d, *J* = 7.9 Hz, 1H), 4.43 (d, *J* = 10.1 Hz, 1H), 3.72 (s, 3H), 3.72 (s, 3H), 2.32 (s, 3H), 2.26 (s, 3H), 1.46 – 1.39 (m, 10H), 1.30 (d, *J* = 6.2 Hz, 3H), 0.86 (d, *J* = 7.2 Hz, 3H).
258	123184437			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{37}NO_8Na$, 526.2411; found, 526.2405	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.08 – 6.91 (m, 3H), 6.89 – 6.82 (m, 1H), 6.76 (ddd, *J* = 8.0, 3.8, 1.7 Hz, 2H), 5.76 – 5.53 (m, 1H), 5.15 – 5.07 (m, 1H), 5.07 – 4.93 (m, 1H), 4.21 – 4.03 (m, 1H), 3.90 – 3.80 (m, 9H), 3.76 – 3.72 (m, 3H), 1.47 – 1.37 (m, 9H), 1.24 (t, *J* = 6.0 Hz, 3H), 1.14 (d, *J* = 6.9 Hz, 1H), 0.86 (d, *J* = 7.0 Hz, 2H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.73, 172.19, 152.83, 152.74, 147.49, 147.21, 135.15, 135.02, 134.77, 134.64, 123.63, 123.58, 123.52, 120.98, 120.94, 120.51, 120.38, 110.86, 110.74, 110.67, 73.58, 60.35, 60.29, 60.20, 55.65, 42.03, 41.98, 28.31, 18.90, 18.77, 18.52, 18.19.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
259	[illegible]		(Thin film) 3362, 2981, 1713, 1618, 1501, 1475, 1430, 1293, 1252, 1165, 1102, 1058, 951, 748	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{25}H_{29}F_4NO_6Na$, 538.1823; found, 538.1826	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.09 – 7.02 (m, 1H), 6.88 – 6.74 (m, 3H), 5.70 – 5.59 (m, 1H), 4.95 (d, *J* = 7.9 Hz, 1H), 4.85 (d, *J* = 9.7 Hz, 1H), 4.22 – 4.07 (m, 1H), 3.97 (d, *J* = 2.4 Hz, 3H), 3.86 (d, *J* = 2.1 Hz, 3H), 1.42 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.96 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.67, 154.91, 151.50, 151.26 (d, *J* = 11.3 Hz), 149.47 (d, *J* = 11.3 Hz), 149.28 (d, *J* = 11.5 Hz), 147.24, 147.18, 147.03, 146.97, 145.35, 145.24, 143.36, 143.25, 129.90 (d, *J* = 3.5 Hz), 129.59, 123.09 – 122.78 (m), 122.38, 110.96 – 110.60 (m), 79.81, 72.19, 61.23, 61.17, 49.21, 42.46, 28.29, 18.87, 18.29.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
260	[illegible]		(Thin film) 3382, 2977, 2930, 1715, 1501, 1453, 1365, 1249, 1167, 1049, 811, 734	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{27}H_{37}NO_4Na$, 462.2615; found, 462.2615	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.07 – 6.84 (m, 6H), 5.64 (dq, *J* = 11.9, 5.9 Hz, 1H), 4.96 (d, *J* = 8.1 Hz, 1H), 4.44 (d, *J* = 10.3 Hz, 1H), 4.18 – 4.02 (m, 1H), 2.35 (s, 3H), 2.29 (s, 3H), 2.27 (s, 3H), 2.25 (s, 3H), 1.42 (s, 9H), 1.27 (d, *J* = 6.1 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.97, 154.93, 139.18, 138.55, 135.43, 135.04, 133.58, 133.35, 130.57, 130.28, 128.58, 127.87, 127.22, 126.90, 79.67, 74.72, 49.26, 47.36, 34.67, 28.32, 21.26, 21.22, 19.77, 19.73, 18.86.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
261	1231888-88		(Thin film) 3364, 2977, 1713, 1499, 1452, 1365, 1209, 1164, 1049, 731	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{27}H_{37}NO_4Na$, 462.2615; found, 462.2614	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.15 (d, *J* = 8.5 Hz, 1H), 7.11 (d, *J* = 8.5 Hz, 1H), 6.96 – 6.88 (m, 4H), 5.64 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.94 (d, *J* = 7.9 Hz, 1H), 4.42 (d, *J* = 10.0 Hz, 1H), 4.17 – 4.05 (m, 1H), 2.34 (s, 3H), 2.30 (s, 3H), 2.25 (s, 3H), 2.22 (s, 3H), 1.42 (s, 9H), 1.28 (d, *J* = 6.2 Hz, 3H), 0.84 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.88, 154.95, 136.54, 136.39, 136.19, 136.07, 135.85, 135.52, 131.49, 131.16, 127.74, 127.12, 126.82, 126.56, 79.63, 74.68, 49.24, 46.84, 34.67, 31.59, 28.32, 20.84, 20.10, 20.06, 18.94.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
262	123188837		(Thin film) 3381, 2979, 1711, 1609, 1589, 1495, 1454, 1366, 1241, 1165, 1049, 810, 729	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{25}H_{31}F_2NO_4Na$, 470.2113; found, 470.2120	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.11 (dd, *J* = 8.4, 6.0 Hz, 1H), 7.07 (dd, *J* = 8.5, 6.0 Hz, 1H), 7.00 (dd, *J* = 10.6, 2.6 Hz, 1H), 6.90 (dd, *J* = 10.3, 2.7 Hz, 1H), 6.87 – 6.77 (m, 2H), 5.55 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.95 (d, *J* = 7.2 Hz, 1H), 4.45 (dt, *J* = 9.6, 1.2 Hz, 1H), 4.20 – 4.08 (m, 1H), 2.34 (s, 3H), 2.28 (s, 3H), 1.42 (s, 9H), 1.31 (d, *J* = 6.2 Hz, 3H), 0.89 (d, *J* = 7.3 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.77, 161.36 (d, *J* = 243.9 Hz), 161.32 (d, *J* = 243.5 Hz), 154.96, 140.69 (d, *J* = 6.7 Hz), 140.10 (d, *J* = 6.4 Hz), 132.38 (d, *J* = 3.2 Hz), 132.07, 132.01, 131.69 (d, *J* = 7.9 Hz), 114.83 (d, *J* = 22.3 Hz), 114.34 (d, *J* = 22.2 Hz), 113.67 (d, *J* = 20.7 Hz), 113.35 (d, *J* = 20.7 Hz), 79.79, 73.85, 49.16, 47.74, 34.67, 31.59, 28.31, 19.39, 19.35, 18.82, 18.05.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
263	[illegible]		(Thin film) 2978, 1710, 1497, 1454, 1366, 1249, 1209, 1160, 1036, 814, 728	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{25}H_{31}F_2NO_6$, 502.2012; found, 502.2011	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.01 – 6.86 (m, 3H), 6.82 (dd, *J* = 5.8, 3.1 Hz, 1H), 6.74 – 6.64 (m, 2H), 5.82 (dq, *J* = 12.0, 6.2 Hz, 1H), 4.97 (d, *J* = 7.8 Hz, 1H), 4.67 (d, *J* = 10.5 Hz, 1H), 4.21 – 4.09 (m, 1H), 3.74 (s, 6H), 1.42 (s, 9H), 1.29 (d, *J* = 6.2 Hz, 3H), 0.89 (d, *J* = 7.3 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.70, 156.13, 155.90, 155.74, 155.57, 154.90, 154.24, 154.00, 127.94 (d, *J* = 15.8 Hz), 127.63 (d, *J* = 16.2 Hz), 116.24 (d, *J* = 24.9 Hz), 115.97 (d, *J* = 24.8 Hz), 115.14, 114.12, 113.16 (d, *J* = 8.3 Hz), 113.03 (d, *J* = 8.2 Hz), 79.69, 71.79, 55.70, 49.15, 43.38, 34.66, 28.30, 19.00, 18.12.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
264	[illegible]		(Thin film) 2978, 2936, 1712, 1623, 1585, 1506, 1445, 1366, 1288, 1159, 1031, 950, 834, 731	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{25}H_{31}F_2NO_6Na$, 502.2012; found, 502.2016	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.27 (t, *J* = 8.6 Hz, 1H), 7.16 (t, *J* = 8.5 Hz, 1H), 6.65 – 6.50 (m, 4H), 5.82 – 5.72 (m, 1H), 4.96 (d, *J* = 7.9 Hz, 1H), 4.60 (d, *J* = 10.2 Hz, 1H), 4.21 – 4.09 (m, 1H), 3.75 (s, 3H), 3.74 (s, 3H), 1.42 (s, 9H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.92 (d, *J* = 7.3 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.73, 161.24 (d, *J* = 245.7 Hz), 161.01 (d, *J* = 246.0 Hz), 159.73 (d, *J* = 11.1 Hz), 159.50 (d, *J* = 11.3 Hz), 154.93, 129.86 (d, *J* = 5.8 Hz), 129.31, 119.70 (d, *J* = 14.6 Hz), 119.41 (d, *J* = 15.1 Hz), 110.15 (d, *J* = 2.9 Hz), 109.77 (d, *J* = 3.0 Hz), 101.81 (d, *J* = 26.8 Hz), 79.67, 72.07, 55.51, 49.19, 41.73, 28.31, 19.01, 18.24.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
265	125188863		(Thin film) 2982, 1714, 1507, 1456, 1417, 1327, 1243, 1212, 1166, 1123, 1033, 860, 739	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{27}H_{31}F_6NO_6Na$, 602.1948; found, 602.1948	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.53 (d, *J* = 8.0 Hz, 1H), 7.31 (d, *J* = 8.0 Hz, 1H), 7.16 (d, *J* = 7.6 Hz, 1H), 7.14 – 7.10 (m, 1H), 7.01 (dd, *J* = 15.7, 1.7 Hz, 2H), 6.01 – 5.91 (m, 1H), 4.97 (d, *J* = 9.7 Hz, 1H), 4.93 (d, *J* = 8.0 Hz, 1H), 4.18 – 4.06 (m, 1H), 3.89 (s, 3H), 3.81 (s, 3H), 1.41 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.83 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.77, 157.43, 154.92, 132.51, 132.36, 130.03, 129.43, 125.01, 122.84, 117.27 (q, *J* = 3.9 Hz), 116.99 (q, *J* = 3.3 Hz), 107.64 (q, *J* = 3.0 Hz), 107.44 (q, *J* = 4.1 Hz), 79.75, 71.76, 55.70, 49.17, 28.29, 18.94, 18.11.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
266	[illegible]		(Thin film) 3355, 2961, 1712, 1493, 1366, 1266, 1160, 1095	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{27}H_{35}F_2NO_6Na$, 530.2325; found, 530.2331	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.39 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.27 – 7.22 (m, 1H), 7.16 – 7.05 (m, 2H), 6.98 – 6.89 (m, 2H), 5.58 (dq, *J* = 8.8, 6.2 Hz, 1H), 4.95 (d, *J* = 7.4 Hz, 1H), 4.68 (d, *J* = 9.1 Hz, 1H), 4.61 (d, *J* = 12.4 Hz, 1H), 4.53 (d, *J* = 12.5 Hz, 1H), 4.42 (d, *J* = 12.3 Hz, 2H), 4.18 – 4.06 (m, 1H), 3.42 (s, 3H), 3.41 (s, 3H), 1.42 (s, 9H), 1.27 (d, *J* = 6.2 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.52, -115.88.
267	[illegible]		(Thin film) 3356, 2977, 1712, 1494, 1366, 1160, 1116, 1096	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{29}H_{39}F_2NO_6Na$, 558.2638; found, 558.2638	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.40 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.24 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.13 (t, *J* = 3.2 Hz, 1H), 7.10 (t, *J* = 3.2 Hz, 1H), 6.96 – 6.88 (m, 2H), 5.59 (dq, *J* = 8.7, 6.2 Hz, 1H), 4.98 (d, *J* = 7.5 Hz, 1H), 4.69 (d, *J* = 8.9 Hz, 1H), 4.65 (d, *J* = 12.5 Hz, 1H), 4.59 (d, *J* = 12.6 Hz, 1H), 4.46 (d, *J* = 12.5 Hz, 1H), 4.45 (d, *J* = 12.6 Hz, 1H), 4.20 – 4.06 (m, 1H), 3.62 – 3.44 (m, 4H), 1.42 (s, 9H), 1.32 – 1.18 (m, 9H), 0.91 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.64, -115.97.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
268	12819423		(Thin film) 3372, 2978, 2936, 2835, 1713, 1582, 1500, 1457, 1366, 1306, 1257, 1211, 1166, 1098, 1048, 910, 752, 734	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{37}NO_6Na$, 494.2513; found, 494.2490	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.07 (q, *J* = 8.0 Hz, 4H), 6.93 (dd, *J* = 7.7, 3.2 Hz, 2H), 6.85 (t, *J* = 7.5 Hz, 2H), 6.74 – 6.62 (m, 4H), 5.65 (dqd, *J* = 9.3, 6.1, 3.1 Hz, 2H), 4.96 (d, *J* = 7.4 Hz, 1H), 4.81 (s, 1H), 4.60 (dd, *J* = 9.9, 6.0 Hz, 2H), 4.09 (dt, *J* = 15.3, 6.9 Hz, 2H), 3.79 (s, 6H), 3.77 (s, 3H), 3.76 (s, 3H), 2.27 (d, *J* = 7.5 Hz, 6H), 2.20 (s, 6H), 1.43 (s, 9H), 1.42 – 1.38 (m, 12H), 1.26 (t, *J* = 6.0 Hz, 6H), 0.83 (d, *J* = 7.2 Hz, 3H).
269	12819426		(Thin film) 3357, 2978, 1712, 1500, 1467, 1452, 1420, 1365, 1250, 1207, 1162, 1091, 1053, 1006, 909, 866, 765, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{37}NO_6Na$, 494.2513; found, 494.2509	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 (dd, *J* = 7.6, 1.4 Hz, 2H), 7.14 (d, *J* = 7.7 Hz, 2H), 7.11 – 6.99 (m, 4H), 6.99 – 6.87 (m, 4H), 5.73 – 5.49 (m, 2H), 5.20 (d, *J* = 7.3 Hz, 1H), 5.14 – 4.98 (m, 3H), 4.11 (s, 2H), 3.81 (s, 3H), 3.76 (s, 3H), 3.74 (s, 3H), 3.71 (s, 3H), 2.35 – 2.23 (m, 12H), 1.43 (d, *J* = 12.5 Hz, 18H), 1.26 (dd, *J* = 6.2, 2.1 Hz, 6H), 1.09 (d, *J* = 6.8 Hz, 3H), 0.82 (d, *J* = 7.1 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
270	1230265		(Thin film) 3364, 2976, 2935, 2836, 1711, 1608, 1585, 1504, 1453	ESIMS *m/z* 521 ($[M+NH4]^{+}$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 (d, *J* = 8.5 Hz, 1H), 7.11 (d, *J* = 8.4 Hz, 1H), 6.41 (dt, *J* = 5.2, 2.6 Hz, 2H), 6.37 (dt, *J* = 5.6, 2.7 Hz, 2H), 5.84 (dq, *J* = 9.8, 6.2 Hz, 1H), 5.01 (d, *J* = 7.9 Hz, 1H), 4.79 (d, *J* = 9.9 Hz, 1H), 4.18 – 4.06 (m, 1H), 3.81 (s, 3H), 3.74 (s, 6H), 3.73 (s, 3H), 1.42 (s, 9H), 1.20 (d, *J* = 6.2 Hz, 3H), 0.88 (d, *J* = 7.2 Hz, 3H).
271	1233267		(Thin film) 3365, 2977, 2934, 1712, 1611, 1504, 1452	ESIMS *m/z* 489 ($[M+NH4]^{+}$)	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.28 (d, *J* = 7.8 Hz, 1H), 7.13 – 7.03 (m, 1H), 6.69 – 6.56 (m, 4H), 5.86 (dq, *J* = 9.8, 6.2 Hz, 1H), 5.01 (d, *J* = 7.8 Hz, 1H), 4.88 (d, *J* = 9.9 Hz, 1H), 4.20 – 3.98 (m, 1H), 3.81 (s, 3H), 3.73 (s, 3H), 2.27 (s, 3H), 2.26 (s, 3H), 1.41 (s, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.85 (d, *J* = 7.1 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
272	12621369		(Thin film) 3366, 2978, 2933, 2835, 1714, 1501, 1453	ESIMS *m/z* 489 ($[M+NH4]^{+}$)	^{1}H NMR (300 MHz, $CDCl_3$) δ 7.18 (d, *J* = 2.1 Hz, 1H), 7.03 (d, *J* = 2.2 Hz, 1H), 6.95 – 6.88 (m, 2H), 6.73 (d, *J* = 8.3 Hz, 1H), 6.68 (d, *J* = 8.3 Hz, 1H), 5.83 (dq, *J* = 12.2, 6.1 Hz, 1H), 5.03 (d, *J* = 7.9 Hz, 1H), 4.93 (d, *J* = 10.3 Hz, 1H), 4.19 – 4.05 (m, 1H), 3.81 (s, 3H), 3.72 (s, 3H), 2.24 (s, 3H), 2.21 (s, 3H), 1.42 (d, *J* = 0.6 Hz, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.84 (d, *J* = 7.2 Hz, 3H).
273	12621378			ESIMS *m/z* 480 ($[M+H]^{+}$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.05 - 6.93 (m, 2H), 6.91 - 6.75 (m, 4H), 5.71 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.91 (d, *J* = 7.9 Hz, 1H), 4.20 - 4.07 (m, 1H), 3.96 (d, *J* = 10.0 Hz, 1H), 3.86 (s, 3H), 3.85 (s, 3H), 1.42 (s, 9H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.86 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -137.12, -137.69.
274	12621377			ESIMS *m/z* 472 ($[M+H]^{+}$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.22 - 7.04 (m, 2H), 6.77 - 6.56 (m, 4H), 5.60 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.95 (d, *J* = 7.9 Hz, 1H), 4.36 (d, *J* = 10.0 Hz, 1H), 4.20 - 4.03 (m, 1H), 3.75 (s, 3H), 3.73 (s, 3H), 2.35 (s, 3H), 2.31 (s, 3H), 1.42 (s, 9H), 1.27 (d, *J* = 6.2 Hz, 3H), 0.87 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
275	12821671			ESIMS *m/z* 432 ($[M+H]^+$)	
276	12821718			ESIMS *m/z* 432 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.35 - 7.28 (m, 2H), 7.25 - 7.20 (m, 2H), 7.20 - 7.09 (m, 2H), 6.65 - 6.51 (m, 2H), 5.81 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.92 (d, *J* = 8.0 Hz, 1H), 4.53 (d, *J* = 10.1 Hz, 1H), 4.19 - 4.04 (m, 1H), 3.83 (s, 3H), 1.42 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.78 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.26.
277	12821717			ESIMS *m/z* 416 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 - 7.20 (m, 5H), 7.19 - 7.10 (m, 1H), 6.92 - 6.81 (m, 2H), 5.75 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.91 (d, *J* = 8.0 Hz, 1H), 4.26 (d, *J* = 10.3 Hz, 1H), 4.18 - 4.02 (m, 1H), 2.38 (s, 3H), 1.42 (s, 9H), 1.25 (d, *J* = 6.1 Hz, 3H), 0.79 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.70.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
278	12321719			ESIMS *m/z* 432 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.32 - 7.12 (m, 6H), 6.59 (td, *J* = 8.3, 2.6 Hz, 1H), 6.52 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.79 (dq, *J* = 10.1, 6.1 Hz, 1H), 5.00 (d, *J* = 8.2 Hz, 1H), 4.51 (d, *J* = 10.2 Hz, 1H), 4.19 - 4.04 (m, 1H), 3.75 (s, 3H), 1.41 (s, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.86 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.59.
279	12602137			ESIMS *m/z* 416 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.38 - 7.15 (m, 6H), 6.90 - 6.77 (m, 2H), 5.72 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.97 (d, *J* = 8.4 Hz, 1H), 4.23 (d, *J* = 10.1 Hz, 1H), 4.19 - 4.03 (m, 1H), 2.31 (s, 3H), 1.42 (s, 9H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -117.14.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
280	12624169			ESIMS *m/z* 446 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.19 (d, *J* = 8.0 Hz, 2H), 7.13 (dt, *J* = 8.1, 6.5 Hz, 1H), 7.04 (d, *J* = 7.9 Hz, 2H), 6.61 - 6.50 (m, 2H), 5.78 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.94 (d, *J* = 7.8 Hz, 1H), 4.49 (d, *J* = 9.8 Hz, 1H), 3.82 (s, 3H), 2.26 (s, 3H), 1.42 (s, 9H), 1.21 (d, *J* = 6.2 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.47.
281	12624191			ESIMS *m/z* 430 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 - 7.25 (m, 1H), 7.16 - 7.09 (m, 2H), 7.04 (d, *J* = 7.8 Hz, 2H), 6.91 - 6.80 (m, 2H), 5.72 (dq, *J* = 10.2, 6.2 Hz, 1H), 4.92 (d, *J* = 8.0 Hz, 1H), 4.22 (d, *J* = 10.2 Hz, 1H), 4.18 - 4.02 (m, 1H), 2.37 (s, 3H), 2.25 (s, 3H), 1.42 (s, 9H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.83 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.91.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
282	1252.4193			ESIMS *m/z* 446 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.26 (dd, *J* = 8.5, 6.5 Hz, 1H), 7.16 (d, *J* = 8.1 Hz, 2H), 7.06 (d, *J* = 8.0 Hz, 2H), 6.58 (td, *J* = 8.3, 2.6 Hz, 1H), 6.52 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.77 (dq, *J* = 10.1, 6.1 Hz, 1H), 5.01 (d, *J* = 8.4 Hz, 1H), 4.48 (d, *J* = 10.3 Hz, 1H), 4.19 - 4.04 (m, 1H), 3.76 (s, 3H), 2.27 (s, 3H), 1.41 (s, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.85 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.81.
283	1252.4195			ESIMS *m/z* 430 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 (dd, *J* = 8.6, 5.8 Hz, 1H), 7.14 - 7.04 (m, 4H), 6.87 - 6.77 (m, 2H), 5.70 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.97 (d, *J* = 7.8 Hz, 1H), 4.19 (d, *J* = 10.3 Hz, 1H), 4.17 - 4.02 (m, 1H), 2.31 (s, 3H), 2.28 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.81 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -117.35.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
284	1263428			ESIMS *m/z* 450 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.35 - 7.22 (m, 2H), 7.12 (dd, *J* = 8.4, 6.5 Hz, 1H), 6.98 - 6.84 (m, 2H), 6.71 - 6.48 (m, 2H), 5.78 (dq, *J* = 12.1, 6.3 Hz, 1H), 4.91 (d, *J* = 8.0 Hz, 1H), 4.49 (d, *J* = 9.9 Hz, 1H), 4.25 - 4.02 (m, 1H), 3.82 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.84 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.92, -116.53.
285	1263211			ESIMS *m/z* 434 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 - 7.16 (m, 3H), 7.00 - 6.79 (m, 4H), 5.70 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.89 (s, 1H), 4.25 (d, *J* = 10.2 Hz, 1H), 4.18 - 4.04 (m, 1H), 2.36 (s, 3H), 1.42 (s, 9H), 1.25 (d, *J* = 6.1 Hz, 3H), 0.87 (d, *J* = 7.0 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.06, -116.38.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
286	1263423			ESIMS *m/z* 450 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.25 - 7.19 (m, 3H), 6.99 - 6.90 (m, 2H), 6.60 (td, *J* = 8.3, 2.5 Hz, 1H), 6.54 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.74 (dq, *J* = 11.9, 6.1 Hz, 1H), 4.94 (d, *J* = 7.8 Hz, 1H), 4.48 (d, *J* = 10.2 Hz, 1H), 4.19 - 4.05 (m, 1H), 3.77 (s, 3H), 1.42 (s, 9H), 1.20 (d, *J* = 6.2 Hz, 3H), 0.86 (d, *J* = 7.3 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.32, -116.11.
287	1263437			ESIMS *m/z* 434 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 (dd, *J* = 8.6, 5.7 Hz, 1H), 7.24 - 7.11 (m, 2H), 7.01 - 6.93 (m, 2H), 6.92 - 6.69 (m, 2H), 5.67 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.92 (d, *J* = 6.4 Hz, 1H), 4.22 (d, *J* = 10.0 Hz, 1H), 4.18 - 4.01 (m, 1H), 2.29 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.83 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.53, -116.86.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
288	125266803		(Thin film) 3364, 2978, 1709, 1600, 1496, 1161	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{25}H_{31}F_2NNaO_5$, 486.2063; found, 486.2063	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.21 (dd, *J* = 8.5, 6.6 Hz, 1H), 7.16 (dd, *J* = 8.5, 5.9 Hz, 1H), 6.82 (tt, *J* = 8.4, 4.1 Hz, 2H), 6.59 (td, *J* = 8.2, 2.5 Hz, 1H), 6.53 (dd, *J* = 10.8, 2.4 Hz, 1H), 5.67 (dq, *J* = 12.3, 6.1 Hz, 1H), 4.97 (d, *J* = 6.5 Hz, 1H), 4.73 (d, *J* = 10.2 Hz, 1H), 4.25 – 4.04 (m, 1H), 3.78 (s, 3H), 2.42 (s, 3H), 1.42 (s, 9H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.52, -116.98.
289	125266806		(Thin film) 3364, 2979, 1710, 1601, 1501, 1162	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{24}H_{28}F_3NNaO_5$, 490.1812; found, 490.1809	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.32 – 7.27 (m, 1H), 7.23 – 7.14 (m, 1H), 6.81 – 6.71 (m, 2H), 6.61 (td, *J* = 8.3, 2.5 Hz, 1H), 6.54 (dd, *J* = 10.8, 2.5 Hz, 1H), 5.79 (dq, *J* = 11.8, 6.1 Hz, 1H), 4.95 (d, *J* = 7.1 Hz, 1H), 4.76 (d, *J* = 10.1 Hz, 1H), 4.21 – 4.05 (m, 1H), 3.76 (s, 3H), 1.42 (s, 9H), 1.23 (d, *J* = 6.3 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.15 (d, *J* = 44.2 Hz), -112.17 (d, *J* = 44.3 Hz), -112.91.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
290	1263691		(Thin film) 3365, 2979, 1709, 1497, 1450, 1160	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{25}H_{31}F_2NNaO_5$, 486.2063; found, 486.2067	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 (dd, *J* = 8.4, 6.2 Hz, 1H), 7.03 (dd, *J* = 8.6, 6.6 Hz, 1H), 6.80 (d, *J* = 8.7 Hz, 2H), 6.58 (d, *J* = 9.2 Hz, 2H), 5.65 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.93 (d, *J* = 6.9 Hz, 1H), 4.73 (d, *J* = 9.9 Hz, 1H), 4.18 – 4.04 (m, 1H), 3.84 (s, 3H), 2.28 (s, 3H), 1.42 (s, 9H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.85 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.94, -117.45.
291	1263692		(Thin film) 3364, 2980, 1711, 1499, 1163	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{24}H_{28}F_3NNaO_4$, 474.1862; found, 474.1863	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 (dd, *J* = 8.1, 5.8 Hz, 1H), 7.18 – 7.07 (m, 1H), 6.90 – 6.75 (m, 4H), 5.67 (dq, *J* = 11.7, 6.5 Hz, 1H), 4.92 (d, *J* = 6.7 Hz, 1H), 4.61 (d, *J* = 10.1 Hz, 1H), 4.19 – 3.95 (m, 1H), 2.29 (s, 3H), 1.42 (s, 9H), 1.27 (d, *J* = 6.3 Hz, 3H), 0.85 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -111.50 (d, *J* = 7.3 Hz), -112.52 (d, *J* = 7.1 Hz), -116.50.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
292	12526637		(Thin film) 3363, 2979, 2939, 2838, 1712, 1586, 1477		^{1}H NMR (400 MHz, $CDCl_3$) for both diastereomers of a 1:1 mixture d 7.18 - 7.09 (m, 2H), 7.01 - 6.87 (m, 10H), 5.76 - 5.58 (m, 2H), 5.03 (d, J = 5.4 Hz, 1H), 5.01 (d, J = 4.9 Hz, 1H), 5.01 - 4.90 (m, 2H), 4.20 - 4.06 (m, 2H), 3.92 (d, J = 2.1 Hz, 3H), 3.89 (d, J = 2.0 Hz, 3H), 3.81 (d, J = 1.9 Hz, 3H), 3.80 (d, J = 1.9 Hz, 3H), 1.44 (s, 9H), 1.42 (s, 9H), 1.25 (d, J = 6.6 Hz, 3H), 1.23 (d, J = 6.3 Hz, 3H), 1.17 (d, J = 7.1 Hz, 3H), 0.90 (d, J = 7.2 Hz, 3H).
293	12526641		(Thin film) 3364, 2980, 2839, 1712, 1495, 1455		^{1}H NMR (400 MHz, $CDCl_3$) major diastereomer of a 2:1 mixture d 7.15 (dt, J = 9.6, 3.0 Hz, 1H), 6.93 (td, J = 8.8, 8.2, 3.1 Hz, 1H), 6.89 – 6.81 (m, 2H), 6.80 – 6.68 (m, 2H), 5.84 (dd, J = 9.6, 6.2 Hz, 1H), 4.98 (s, 1H), 4.86 (d, J = 9.2 Hz, 1H), 4.24 – 4.07 (m, 1H), 3.82 (s, 3H), 3.74 (s, 3H), 1.42 (s, 9H), 1.23 (d, J = 6.3 Hz, 3H), 0.90 (d, J = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
294	1253688-19			ESIMS *m/z* 412 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.19 – 7.10 (m, 2H), 7.10 – 7.07 (m, 4H), 7.03 – 6.98 (m, 1H), 6.98 – 6.92 (m, 1H), 5.76 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.94 (d, *J* = 7.9 Hz, 1H), 4.18 – 4.03 (m, 1H), 3.94 (d, *J* = 10.3 Hz, 1H), 2.30 (s, 3H), 2.28 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.76 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) missing one aromatic C signal due to overlap d 172.84, 141.56, 141.27, 138.32, 137.91, 128.87, 128.87, 128.60, 128.34, 127.62, 127.30, 125.06, 124.89, 73.20, 57.91, 53.39, 49.25, 28.31, 21.46, 21.42, 19.32, 18.01.
295	1253776-39			ESIMS *m/z* 416 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.32 – 7.21 (m, 5H), 7.21 – 7.15 (m, 1H), 6.86 (dd, *J* = 8.0, 1.7 Hz, 1H), 6.79 (dd, *J* = 11.3, 1.6 Hz, 1H), 5.85 – 5.72 (m, 1H), 5.04 – 4.94 (m, 1H), 4.39 (d, *J* = 10.1 Hz, 1H), 4.14 (p, *J* = 7.4, 6.8 Hz, 1H), 2.26 (s, 3H), 1.42 (s, 9H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.90 – 0.81 (m, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -118.88.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
296	1263278-41			ESIMS *m/z* 434 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.28 – 7.17 (m, 3H), 6.99 – 6.93 (m, 2H), 6.88 (dd, *J* = 8.0, 1.7 Hz, 1H), 6.80 (dd, *J* = 11.2, 1.6 Hz, 1H), 5.74 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.98 (d, *J* = 7.9 Hz, 1H), 4.37 (d, *J* = 10.0 Hz, 1H), 4.22 – 4.07 (m, 1H), 2.27 (s, 3H), 1.42 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.88 (d, *J* = 7.5 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.62, -118.85.
297	1263278-42			ESIMS *m/z* 430 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.22 (t, *J* = 8.0 Hz, 1H), 7.19 – 7.13 (m, 2H), 7.07 (d, *J* = 7.9 Hz, 2H), 6.85 (dd, *J* = 8.0, 1.8 Hz, 1H), 6.77 (dd, *J* = 11.2, 1.6 Hz, 1H), 5.83 – 5.69 (m, 1H), 5.03 (d, *J* = 8.0 Hz, 1H), 4.35 (d, *J* = 10.3 Hz, 1H), 4.19 – 4.05 (m, 1H), 2.27 (s, 3H), 2.24 (s, 3H), 1.41 (s, 9H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.86 (d, *J* = 8.4 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -118.95.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
298	1263279123			ESIMS *m/z* 416 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 - 7.22 (m, 4H), 7.22 - 7.11 (m, 1H), 7.12 - 7.02 (m, 2H), 6.91 (dd, *J* = 9.4, 8.2 Hz, 1H), 5.74 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.92 (d, *J* = 7.9 Hz, 1H), 4.17 - 4.04 (m, 1H), 3.97 (d, *J* = 10.2 Hz, 1H), 2.23 (d, *J* = 1.9 Hz, 3H), 1.41 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.76 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -120.18.
299	1263279126			ESIMS *m/z* 464 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.23 (dd, *J* = 8.6, 6.6 Hz, 1H), 7.07 - 7.01 (m, 2H), 6.88 (t, *J* = 9.3 Hz, 1H), 6.60 (td, *J* = 8.3, 2.6 Hz, 1H), 6.54 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.72 (dq, *J* = 11.8, 6.0 Hz, 1H), 4.95 (d, *J* = 8.0 Hz, 1H), 4.44 (d, *J* = 10.3 Hz, 1H), 4.19 - 4.07 (m, 1H), 3.78 (s, 3H), 2.22 (d, *J* = 1.9 Hz, 3H), 1.42 (s, 9H), 1.20 (d, *J* = 6.1 Hz, 3H), 0.86 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.49, -120.41.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
300	125281107			ESIMS *m/z* 448 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.24 (dd, *J* = 9.6, 5.6 Hz, 1H), 7.16 (t, *J* = 7.9 Hz, 1H), 6.85 (dt, *J* = 10.4, 2.4 Hz, 3H), 6.79 (dt, *J* = 11.3, 1.1 Hz, 1H), 5.70 (dq, *J* = 10.2, 6.2 Hz, 1H), 4.99 (d, *J* = 8.0 Hz, 1H), 4.61 (d, *J* = 10.1 Hz, 1H), 4.22 – 4.09 (m, 1H), 2.39 (s, 3H), 2.26 (s, 3H), 1.42 (s, 9H), 1.25 (d, *J* = 6.1 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.47, -118.10.
301	125281111			ESIMS *m/z* 452 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.30 – 7.21 (m, 2H), 6.92 – 6.85 (m, 1H), 6.85 – 6.74 (m, 3H), 5.84 – 5.73 (m, 1H), 4.97 (d, *J* = 7.9 Hz, 1H), 4.68 (d, *J* = 10.0 Hz, 1H), 4.22 – 4.07 (m, 1H), 2.28 (s, 3H), 1.42 (s, 9H), 1.26 (d, *J* = 6.2 Hz, 3H), 0.90 (d, *J* = 7.3 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -111.63 (d, *J* = 7.5 Hz), -112.07 (d, *J* = 7.0 Hz), -118.16.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
302	128391179		(Thin film) 3366, 2979, 2932, 1713, 1496, 1452, 1365, 1306, 1248, 1211, 1165, 1053, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{24}H_{32}NO_4$, 398.2326; found, 398.2328	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.29 – 7.21 (m, 4H), 7.19 – 7.13 (m, 3H), 7.09 (d, *J* = 7.9 Hz, 2H), 5.77 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.92 (d, *J* = 7.9 Hz, 1H), 4.17 – 4.04 (m, 1H), 3.99 (d, *J* = 10.3 Hz, 1H), 2.28 (s, 3H), 1.41 (s, 9H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.75 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.83, 154.94, 141.81, 138.26, 136.50, 129.98, 129.46, 128.47, 127.93 (d, *J* = 3.6 Hz), 126.56, 120.94, 79.63, 73.17, 57.62, 49.18, 34.67, 28.31, 20.97, 19.30, 18.00.
303	128391181		(Thin film) 3371, 2978, 2931, 1712, 1495, 1451, 1365, 1165, 1051, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{24}H_{32}NO_4$, 398.2326; found, 398.2324	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.26 (d, *J* = 4.5 Hz, 5H), 7.18 (d, *J* = 7.9 Hz, 2H), 7.05 (d, *J* = 7.9 Hz, 2H), 5.77 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.94 (d, *J* = 7.9 Hz, 1H), 4.18 – 4.05 (m, 1H), 3.99 (d, *J* = 10.0 Hz, 1H), 2.26 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.80 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.83, 154.94, 141.52, 138.41, 136.15, 129.12, 128.73, 128.21, 128.05, 127.95, 126.79, 124.35, 79.63, 73.17, 57.47, 49.21, 34.67, 28.31, 20.94, 19.30, 18.08.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
304	1253291183		(Thin film) 3371, 2979, 2932, 1712, 1508, 1452, 1366, 1222, 1160, 1053, 816	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{24}H_{30}FNO_4Na$, 438.2051; found, 438.2052	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.25 – 7.20 (m, 2H), 7.15 (d, *J* = 8.1 Hz, 2H), 7.07 (d, *J* = 7.9 Hz, 2H), 6.96 (t, *J* = 8.7 Hz, 2H), 5.72 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.93 (d, *J* = 7.9 Hz, 1H), 4.17 – 4.06 (m, 1H), 3.99 (d, *J* = 9.8 Hz, 1H), 2.27 (s, 3H), 1.42 (s, 9H), 1.21 (d, *J* = 6.2 Hz, 3H), 0.81 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.80, 161.65 (d, *J* = 245.5 Hz), 154.94, 138.13, 137.32 (d, *J* = 3.2 Hz), 136.35, 129.52 (d, *J* = 7.9 Hz), 129.22, 127.89, 126.12 (d, *J* = 7.8 Hz), 115.56 (d, *J* = 21.3 Hz), 79.68, 73.01, 56.60, 49.19, 34.67, 31.59, 28.31, 20.95, 19.22, 18.07.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
305	128291185		(Thin film) 3371, 2979, 2933, 1710, 1509, 1452, 1366, 1222, 1160, 1051, 699	ESIMS *m/z* 402.2 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.31 – 7.23 (m, 7H), 6.98 – 6.92 (m, 2H), 5.75 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.91 (d, *J* = 7.8 Hz, 1H), 4.18 – 4.07 (m, 1H), 4.02 (d, *J* = 10.0 Hz, 1H), 1.42 (s, 9H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.83 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.80, 161.61 (d, *J* = 245.2 Hz), 154.93, 141.02, 137.26 (d, *J* = 3.4 Hz), 129.55 (d, *J* = 7.9 Hz), 128.86, 127.99, 127.05, 115.29 (d, *J* = 21.2 Hz), 79.74, 73.05, 57.10, 49.18, 34.67, 28.31, 19.29, 18.12.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
306	1263918??		(Thin film) 3371, 2979, 2932, 1712, 1509, 1452, 1366, 1222, 1161, 1052, 815	ESIMS *m/z* 438.2 ($[M+Na]^{+}$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.26 – 7.21 (m, 2H), 7.14 (d, *J* = 8.2 Hz, 2H), 7.09 (d, *J* = 8.1 Hz, 2H), 6.98 – 6.90 (m, 2H), 5.73 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.91 (d, *J* = 8.0 Hz, 1H), 4.17 – 4.06 (m, 1H), 3.98 (d, *J* = 10.2 Hz, 1H), 2.29 (s, 3H), 1.42 (s, 9H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.80, 161.56 (d, *J* = 245.0 Hz), 154.93, 138.04, 137.58 (d, *J* = 3.3 Hz), 136.69, 129.54, 129.43 (d, *J* = 7.8 Hz), 127.82, 115.25 (d, *J* = 21.2 Hz), 79.72, 73.11, 56.76, 49.18, 34.67, 28.31, 20.97, 19.28, 18.12.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
307	12829287	(Thin film) 3370, 2980, 2936, 1712, 1503, 1453, 1366, 1164, 1053, 966, 851, 698	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{23}H_{28}F_2NO_4$, 420.1981; found, 420.1995	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.33 – 7.24 (m, 5H), 7.22 – 7.14 (m, 1H), 6.86 – 6.73 (m, 2H), 5.84 – 5.72 (m, 1H), 4.90 (d, *J* = 8.0 Hz, 1H), 4.40 (d, *J* = 10.2 Hz, 1H), 4.18 – 4.05 (m, 1H), 1.42 (s, 9H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.78 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.74, 162.98 – 161.09 (m), 160.06 (dd, *J* = 169.5, 12.1 Hz), 154.93, 140.15, 129.79, 128.61, 128.22, 127.00, 124.39 (d, *J* = 18.6 Hz), 111.62 (d, *J* = 19.5 Hz), 104.70 – 103.41 (m), 79.71, 72.30, 49.40, 49.15, 34.67, 28.31, 18.97, 17.99.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
308	125292-03		(Thin film) 3364, 2980, 2933, 1713, 1502, 1453, 1366, 1164, 1053, 966, 850	HRMS-ESI (*m/z*) ($[M+Na]^{+}$) calcd for $C_{24}H_{29}F_2NO_4Na$, 456.1957; found, 456.1953	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.25 – 7.20 (m, 1H), 7.18 (d, *J* = 8.1 Hz, 2H), 7.07 (d, *J* = 7.6 Hz, 2H), 6.85 – 6.72 (m, 2H), 5.76 (dtd, *J* = 9.5, 6.8, 5.5 Hz, 1H), 4.92 (d, *J* = 7.8 Hz, 1H), 4.36 (d, *J* = 10.0 Hz, 1H), 4.19 – 4.01 (m, 1H), 2.27 (s, 3H), 1.42 (s, 9H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.82 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.74, 161.98 (dd, *J* = 167.8, 11.9 Hz), 160.01 (dd, *J* = 167.8, 11.9 Hz), 154.93, 137.05, 136.57, 129.90, 129.24, 128.11, 124.66 (d, *J* = 11.5 Hz), 111.57 (d, *J* = 20.4 Hz), 104.69 – 102.95 (m), 79.70, 72.38, 49.18, 48.94, 28.31, 20.97, 18.97, 18.07.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
309	12829211		(Thin film) 3364, 2981, 1711, 1604, 1502, 1454, 1380, 1366, 1224, 1161, 1053, 966, 851,	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{23}H_{26}F_3NO_4Na$, 460.1706; found, 460.1712	^{1}H NMR (400 MHz, $CDCl_3$) δ 7.29 – 7.19 (m, 3H), 6.99 – 6.93 (m, 2H), 6.86 – 6.75 (m, 2H), 5.81 – 5.70 (m, 1H), 4.90 (d, *J* = 7.9 Hz, 1H), 4.37 (d, *J* = 10.1 Hz, 1H), 4.21 – 4.06 (m, 1H), 1.42 (s, 9H), 1.26 (d, *J* = 6.2 Hz, 3H), 0.85 (dd, *J* = 7.8, 1.1 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.71, 162.85, 162.71, 161.37, 161.28, 160.87, 160.75, 159.39, 159.30, 154.93, 135.92, 129.76 (d, *J* = 7.7 Hz), 115.44 (d, *J* = 21.3 Hz), 111.71 (d, *J* = 18.0 Hz), 104.71 – 103.96 (m), 79.80, 72.20, 49.16, 48.78, 34.67, 28.30, 18.99, 18.09.
310	12830307			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{38}NO_2$, 396.2897; found, 396.2896	
311	12830313			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{24}H_{34}NO_2$, 368.2584; found, 368.2584	^{1}H NMR (400 MHz, Acetone-d6) δ 7.31 – 7.21 (m, 4H), 7.15 (ddd, *J* = 10.9, 8.5, 2.5 Hz, 4H), 5.87 (dq, *J* = 10.0, 6.0 Hz, 1H), 4.05 (d, *J* = 10.5 Hz, 1H), 3.85 (q, *J* = 7.2 Hz, 1H), 3.31 (dt, *J* = 3.3, 1.7 Hz, 3H), 2.91 – 2.73 (m, 2H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.19 (t, *J* = 6.7 Hz, 12H), 0.81 (dd, *J* = 7.3, 2.8 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
312	125806319			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{30}NO_2$, 340.2271; found, 340.2273	
313	125806869			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{20}H_{24}F_2NO_2$, 348.1770; found, 348.1780	^{1}H NMR (400 MHz, Acetone-d6) δ 7.34 (dd, *J* = 8.7, 5.7 Hz, 1H), 7.26 (dd, *J* = 8.7, 5.8 Hz, 1H), 7.02 – 6.80 (m, 5H), 5.75 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.59 (d, *J* = 9.8 Hz, 1H), 3.96 (q, *J* = 7.2 Hz, 1H), 3.72 – 3.60 (m, 2H), 2.40 (s, 3H), 2.37 (s, 3H), 1.34 (d, *J* = 6.2 Hz, 3H), 1.03 (d, *J* = 7.3 Hz, 3H). ^{19}F NMR (376 MHz, Acetone) δ -119.66, -120.05.
314	125808743			ESIMS *m/z* 320 ($[M+H]^+$)	
315	125808746			ESIMS *m/z* 320 ($[M+H]^+$)	
316	125810405			ESIMS *m/z* 380.5 ($[M+H]^+$)	
317	125810411			ESIMS *m/z* 374.4 ($[M+H]^+$)	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
318	12513787			ESIMS *m/z* 298 ($[M+H]^+$)	
319	12513336			ESIMS *m/z* 334 ($[M+H]^+$)	
320	12513339			ESIMS *m/z* 420 ($[M+H]^+$)	
321	12513349			ESIMS *m/z* 428 ($[M+H]^+$)	
322	12513765		(Thin film) 2851, 1740, 1494, 1451, 1253, 1231, 1204, 1117, 1080, 1046, 871, 746, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{18}H_{22}NO_2$, 284.1645; found, 284.1644	
323	12513911			ESIMS *m/z* 412.3 ($[M+H]^+$)	
324	12513903			ESIMS *m/z* 408.4 ($[M+H]^+$)	
325	12513905			ESIMS *m/z* 440.3 ($[M+H]^+$)	
326	12513907			ESIMS *m/z* 400.4 ($[M+H]^+$)	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
327	1251744 7			ESIMS *m/z* 404 ($[M+H]^+$)	
328	1251744 9			ESIMS *m/z* 372 ($[M+H]^+$)	
329	1251744 51			ESIMS *m/z* 372 ($[M+H]^+$)	
330	1251744 60			ESIMS *m/z* 380 ($[M+H]^+$)	
331	1251744 68			ESIMS *m/z* 380 ($[M+H]^+$)	
332	1251820 1			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{20}H_{24}F_2NO_4$, 380.1668; found, 380.1649	^{1}H NMR (500 MHz, Methanol-d4) δ 6.74 (dddd, *J* = 17.6, 8.0, 3.7, 1.8 Hz, 4H), 6.58 (ddt, *J* = 12.2, 10.0, 2.3 Hz, 2H), 5.83 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.13 (d, *J* = 10.3 Hz, 1H), 3.93 (q, *J* = 7.2 Hz, 1H), 3.78 (s, 3H), 3.77 (s, 3H), 1.28 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.3 Hz, 3H) (NH protons not observed). ^{19}F NMR (471 MHz, Methanol-d4) δ -112.85 (t, *J* = 10.0 Hz), -113.22 (t, *J* = 10.3 Hz).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
333	*12318203*			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{30}NO_6$, 404.2068; found, 404.2038	^{1}H NMR (500 MHz, Methanol-d4) δ 6.51 (dd, *J* = 5.2, 2.3 Hz, 4H), 6.35 (dt, *J* = 13.0, 2.2 Hz, 2H), 5.82 (dq, *J* = 10.4, 6.1 Hz, 1H), 3.99 (d, *J* = 10.4 Hz, 1H), 3.89 (q, *J* = 7.2 Hz, 1H), 3.75 (s, 6H), 3.74 (s, 6H), 1.27 (d, *J* = 6.2 Hz, 3H), 0.96 (d, *J* = 7.3 Hz, 3H) (NH protons not observed).
334	*12318207*			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{30}NO_4$, 372.2169; found, 372.2146	^{1}H NMR (500 MHz, Methanol-d4) δ 6.75 (d, *J* = 4.0 Hz, 2H), 6.69 (dt, *J* = 6.6, 1.9 Hz, 2H), 6.61 (s, 1H), 6.58 (d, *J* = 2.3 Hz, 1H), 5.82 (dq, *J* = 10.4, 6.1 Hz, 1H), 3.97 (d, *J* = 10.5 Hz, 1H), 3.85 (q, *J* = 7.3 Hz, 1H), 3.75 (s, 3H), 3.74 (s, 3H), 2.29 (s, 3H), 2.27 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H) (NH protons not observed).
335	*12318209*			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{30}NO_4$, 372.2169; found, 372.2146	^{1}H NMR (500 MHz, Methanol-d4) δ 6.75 (d, *J* = 4.0 Hz, 2H), 6.69 (dt, *J* = 6.6, 1.9 Hz, 2H), 6.61 (s, 1H), 6.58 (d, *J* = 2.3 Hz, 1H), 5.82 (dq, *J* = 10.4, 6.1 Hz, 1H), 3.97 (d, *J* = 10.5 Hz, 1H), 3.85 (q, *J* = 7.3 Hz, 1H), 3.75 (s, 3H), 3.74 (s, 3H), 2.29 (s, 3H), 2.27 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H) (NH protons not observed).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
336	12618211			ESIMS *m/z* 372.1 ($[M+H]^+$)	^{1}H NMR (500 MHz, Methanol-d4) δ 7.03 (dd, *J* = 11.9, 7.5 Hz, 2H), 6.92 – 6.80 (m, 4H), 5.88 (dq, *J* = 10.5, 6.1 Hz, 1H), 4.05 (d, *J* = 10.4 Hz, 1H), 3.88 (q, *J* = 7.2 Hz, 1H), 3.80 (d, *J* = 1.0 Hz, 6H), 2.12 (s, 3H), 2.11 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H) (NH protons not observed).
337	12618213			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{20}H_{24}F_2NO_4$, 380.1668; found, 380.1667	^{1}H NMR (500 MHz, Methanol-d4) δ 7.15 – 7.06 (m, 4H), 7.03 (q, *J* = 8.5 Hz, 2H), 5.77 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.06 (d, *J* = 10.0 Hz, 1H), 3.93 (q, *J* = 7.3 Hz, 1H), 3.83 (s, 3H), 3.82 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.3 Hz, 3H) (NH protons not observed). ^{19}F NMR (471 MHz, Methanol-d4) δ -136.28 (dd, *J* = 12.6, 8.5 Hz), -136.53 (dd, *J* = 12.6, 8.9 Hz).
338	12618215			ESIMS *m/z* 372.1 ($[M+H]^+$)	^{1}H NMR (500 MHz, Methanol-d4) δ 7.14 – 7.03 (m, 4H), 6.80 (dd, *J* = 12.7, 8.4 Hz, 2H), 5.77 (dq, *J* = 10.3, 6.2 Hz, 1H), 3.92 (d, *J* = 10.4 Hz, 1H), 3.86 (q, *J* = 7.2 Hz, 1H), 3.78 (s, 3H), 3.76 (s, 3H), 2.15 (s, 3H), 2.14 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.92 (d, *J* = 7.3 Hz, 3H) (NH protons not observed).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
339	12818217			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{30}NO_6$, 404.2068; found, 404.2059	^{1}H NMR (500 MHz, Methanol-d4) δ 7.03 (d, *J* = 3.0 Hz, 1H), 6.90 – 6.80 (m, 3H), 6.75 (ddd, *J* = 8.9, 4.5, 3.1 Hz, 2H), 5.99 (dq, *J* = 10.2, 6.2 Hz, 1H), 4.91 (d, *J* = 10.2 Hz, 1H), 3.89 (q, *J* = 7.2 Hz, 1H), 3.81 (s, 3H), 3.73 (s, 3H), 3.73 (s, 3H), 3.70 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H) (NH protons not observed).
340	12818863		(Thin film) 2938, 1742, 1617, 1501, 1473, 1429, 1293, 1233, 1189, 1119, 1050, 950, 785	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{20}H_{22}F_4NO_4$, 416.1479; found, 416.1479	
341	12818867		(Thin film) 2866, 1742, 1500, 1454, 1378, 1226, 1113, 1048, 808, 792, 737	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{30}NO_2$, 340.2271; found, 340.2269	
342	12818869		(Thin film) 2863, 1748, 1736, 1526, 1500, 1456, 1376, 1238, 1187, 1116, 1048, 810, 791, 751	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{30}NO_2$, 340.2271; found, 340.2274	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
343	12518871		(Thin film) 2878, 1751, 1738, 1587, 1526, 1494, 1459, 1240, 1226, 1188, 1130, 1048, 811, 754	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{20}H_{24}F_2NO_2$, 348.1770; found, 348.1771	
344	12518873		(Thin film) 2962, 1747, 1596, 1497, 1234, 1205, 1114, 1052, 1034, 829, 811, 713	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{20}H_{24}F_2NO_4$, 380.1668; found, 380.1665	
345	12518876		(Thin film) 2839, 1744, 1622, 1583, 1506, 1444, 1287, 1254, 1193, 1116, 1050, 1030, 872, 833	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{20}H_{24}F_2NO_4$, 380.1668; found, 380.1671	
346	12518877		(Thin film) 2941, 1742, 1615, 1588, 1457, 1417, 1326, 1241, 1171, 1116, 1032, 873, 859, 740	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{22}H_{24}F_6NO_4$, 480.1604; found, 480.1607	
347	12518966			ESIMS *m/z* 408.2 ($[M+H]^+$)	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
348	1253189711			ESIMS *m/z* 436.2 ($[M+H]^+$)	
349	1261983*1			ESIMS *m/z* 404.1 ($[M+H]^+$)	
350	1253201*7			ESIMS *m/z* 372.1 ($[M+H]^+$)	
351	1253201*9			ESIMS *m/z* 372.1 ($[M+H]^+$)	
352	1263213*9			ESIMS *m/z* 380 ($[M+H]^+$)	
353	1263213*1			ESIMS *m/z* 372 ($[M+H]^+$)	
354	1253221*6			ESIMS *m/z* 332 ($[M+H]^+$)	
355	1253221*7			ESIMS *m/z* 316 ($[M+H]^+$)	
356	1263221*1			ESIMS *m/z* 332 ($[M+H]^+$)	
357	1263221*3			ESIMS *m/z* 316 ($[M+H]^+$)	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
358	1263241197			ESIMS *m/z* 346 ($[M+H]^+$)	
359	1263241199			ESIMS *m/z* 330 ($[M+H]^+$)	
360	1263242001			ESIMS *m/z* 346 ($[M+H]^+$)	
361	1263242115			ESIMS *m/z* 350 ($[M+H]^+$)	
362	1263242117			ESIMS *m/z* 334 ($[M+H]^+$)	
363	1263243439			ESIMS *m/z* 350 ($[M+H]^+$)	
364	1263243511			ESIMS *m/z* 334 ($[M+H]^+$)	
365	1263243931			ESIMS *m/z* 312($[M+H]^+$)	
366	1263266571			ESIMS *m/z* 364.2 ($[M+H]^+$)	
367	1263266623			ESIMS *m/z* 368.2 ($[M+H]^+$)	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
368	1263366627			ESIMS *m/z* 364.2 ($[M+H]^+$)	
369	1263366629			ESIMS *m/z* 352.2 ($[M+H]^+$)	
370	1263362777			ESIMS *m/z* 316($[M+H]^+$)	
371	1263362779			ESIMS *m/z* 334($[M+H]^+$)	
372	1263362781			ESIMS *m/z* 330 ($[M+H]^+$)	
373	1263362783			ESIMS *m/z* 348($[M+H]^+$)	
374	1263362785			ESIMS *m/z* 352 ($[M+H]^+$)	
375	1263279327			ESIMS *m/z* 316 ($[M+H]^+$)	
376	1263279329			ESIMS *m/z* 364 ($[M+H]^+$)	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
377	12829191		(Thin film) 3408, 2920, 1740, 1512, 1495, 1452, 1232, 1198, 1114, 1048, 734, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{19}H_{24}NO_2$, 298.1802; found, 298.1798	
378	12829193		(Thin film) 2877, 1749, 1599, 1515, 1493, 1452, 1228, 1193, 1139, 1119, 1055, 744, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{19}H_{24}NO_2$, 298.1802; found, 298.1795	
379	12829195		(Thin film) 2879, 1747, 1602, 1508, 1454, 1227, 1197, 1116, 1053, 814, 733	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{19}H_{23}FNO_2$, 316.1707; found, 316.1703	
380	12829197		(Thin film) 2896, 1741, 1604, 1509, 1453, 1226, 1117, 1047, 732, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{18}H_{21}FNO_2$, 302.1551; found, 302.1548	
381	12829199		(Thin film) 2919, 1741, 1603, 1509, 1459, 1229, 1117, 1049, 813	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{19}H_{23}FNO_2$, 316.1707; found, 316.1705	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
382	1263923.13		(Thin film) 3396, 2936, 1743, 1619, 1602, 1503, 1454, 1235, 1208, 1145, 1116, 966, 850, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{18}H_{20}F_2NO_2$, 320.1457; found, 320.1451	
383	1253923.17		(Thin film) 3440, 2924, 1743, 1603, 1502, 1234, 1208, 1116, 1100, 1083, 966, 849	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{19}H_{22}F_2NO_2$, 334.1613; found, 334.1606	
384	1253923.38		(Thin film) 3384, 2935, 1743, 1603, 1503, 1228, 1117, 966, 850	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{18}H_{19}F_3NO_2$, 338.1362; found, 338.1356	
385	1253923.39		(Thin film) 3384, 2935, 1743, 1603, 1503, 1228, 1117, 966, 850	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{18}H_{19}F_3NO_2$, 338.1362; found, 338.1356	

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
386	12536171			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{25}H_{25}F_2N_2O_5$, 471.1728; found, 471.1726.	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.05 (d, *J* = 0.6 Hz, 1H), 8.31 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.22 (dddd, *J* = 11.7, 8.5, 5.3, 2.6 Hz, 4H), 7.02 – 6.89 (m, 4H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.72 (dq, J = 9.7, 6.2 Hz, 1H), 4.60 – 4.46 (m, 1H), 4.05 (d, *J* = 9.8 Hz, 1H), 3.94 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.56, 168.60, 162.98, 162.87, 160.54, 160.42, 155.41, 148.75, 140.43, 136.83, 136.80, 136.73, 136.70, 130.36, 129.54, 129.46, 115.83, 115.62, 115.50, 115.29, 109.46, 73.32, 56.14, 56.08, 47.87, 30.92, 19.12, 17.67.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
387	125361173			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{25}F_2N_2O_5$, 471.1723; found, 471.1726.	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.7 Hz, 1H), 8.20 (d, *J* = 8.0 Hz, 1H), 7.99 (d, *J* = 5.2 Hz, 1H), 7.24 – 7.13 (m, 4H), 7.03 – 6.93 (m, 2H), 6.93 – 6.84 (m, 3H), 5.69 (dq, *J* = 9.1, 6.2 Hz, 1H), 4.59 – 4.45 (m, 1H), 4.05 (d, *J* = 9.0 Hz, 1H), 3.96 (s, 3H), 1.34 (d, J = 7.2 Hz, 3H), 1.22 (d, *J* = 6.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.26, 168.55, 162.94, 162.84, 160.49, 160.40, 155.44, 148.78, 140.44, 136.82, 136.79, 136.46, 136.43, 130.35, 129.74, 129.67, 129.65, 129.57, 115.76, 115.55, 115.46, 115.24, 109.50, 99.99, 73.34, 56.11, 55.66, 47.80, 18.95, 17.74.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
388	12837121		(Thin film) 3371, 2981, 1735, 1649, 1495, 1261, 954, 800, 728	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_5$, 499.2039; found, 499.2044	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.05 (s, 1H), 8.32 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.24 (dd, *J* = 8.7, 5.8 Hz, 1H), 7.14 (dd, *J* = 8.6, 5.8 Hz, 1H), 6.92 – 6.72 (m, 5H), 5.64 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.53 (p, *J* = 7.3 Hz, 1H), 4.44 (d, *J* = 9.7 Hz, 1H), 3.94 (s, 3H), 2.38 (s, 3H), 2.31 (s, 3H), 1.31 (d, *J* = 6.1 Hz, 3H), 1.10 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (471 MHz, $CDCl_3$) δ -116.46 (td, *J* = 8.8, 5.7 Hz), -116.87 (td, *J* = 9.0, 5.9 Hz).
389	12837123		(Thin film) 3370, 2962, 1735, 1649, 1527, 1264, 1145, 801, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{33}H_{43}N_2O_5$, 547.3166; found, 547.3163	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.12 (s, 1H), 8.38 (d, *J* = 7.9 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.29 (d, *J* = 8.3 Hz, 2H), 7.25 (s, 6H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.80 (dq, *J* = 10.3, 6.2 Hz, 1H), 4.48 (p, *J* = 7.3 Hz, 1H), 3.98 (d, *J* = 10.3 Hz, 1H), 3.93 (s, 3H), 1.28 – 1.25 (m, 12H), 1.24 (s, 9H), 0.83 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.76, 168.50, 155.32, 149.63, 149.44, 148.70, 140.42, 138.71, 138.13, 130.51, 127.66, 127.63, 125.64, 125.36, 109.37, 74.03, 57.25, 56.05, 47.78, 34.37, 34.32, 31.31, 31.30, 19.33, 17.40.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
390	12897127		(Thin film) 3370, 2959, 1734, 1649, 1527, 1450, 1280, 1145, 1045, 801, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{39}N_2O_5$, 519.2853; found, 519.2848	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.12 (s, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.23 (dd, *J* = 8.3, 2.6 Hz, 5H), 7.13 (d, *J* = 7.9 Hz, 2H), 7.09 (d, *J* = 7.9 Hz, 2H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.80 (dq, *J* = 10.4, 6.1 Hz, 1H), 4.49 (p, *J* = 7.3 Hz, 1H), 3.98 (d, *J* = 10.2 Hz, 1H), 3.93 (s, 3H), 2.82 (tp, *J* = 13.9, 6.9 Hz, 2H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.20 (d, *J* = 6.9 Hz, 6H), 1.16 (d, *J* = 6.9 Hz, 6H), 0.86 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.75, 168.50, 155.32, 148.70, 147.36, 147.20, 140.41, 139.09, 138.58, 130.51, 127.91, 126.79, 126.50, 109.37, 73.97, 57.39, 56.05, 47.80, 33.64, 33.62, 23.98, 23.97, 23.93, 19.31, 17.45.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
391	12807131		(Thin film) 3370, 2959, 1734, 1649, 1576, 1450, 1262, 1147, 1050, 800, 728	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_5$, 491.2540; found, 491.2540	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.12 (s, 1H), 8.36 (d, *J* = 7.9 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.07 – 6.89 (m, 6H), 6.86 (d, *J* = 5.3 Hz, 1H), 5.76 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.52 (p, *J* = 7.3 Hz, 1H), 3.94 (s, 3H), 3.91 (d, *J* = 10.3 Hz, 1H), 2.17 (dd, *J* = 20.2, 12.3 Hz, 12H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.72, 168.48, 155.32, 148.69, 140.38, 139.15, 138.98, 136.84, 136.38, 135.01, 134.59, 130.50, 129.93, 129.62, 129.33, 129.28, 125.27, 124.99, 109.35, 73.76, 57.12, 56.05, 47.88, 19.88, 19.79, 19.30, 19.29, 19.24, 17.67.
392	12809163		(Thin film) 3358, 2936, 1749, 1659, 1508, 1223, 1131	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{22}F_5N_2O_5$, 525.1443; found, 525.1451	^{1}H NMR (400 MHz, $CDCl_3$) δ 11.51 – 11.26 (m, 1H), 8.72 – 8.46 (m, 1H), 8.10 – 7.95 (m, 1H), 7.24 – 7.13 (m, 4H), 7.03 – 6.82 (m, 5H), 5.88 – 5.70 (m, 1H), 5.31 – 5.11 (m, 1H), 4.12 – 4.04 (m, 1H), 4.01 – 3.93 (m, 3H), 1.32 – 1.25 (m, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
393	123100441		(Thin film) 3371, 2939, 1734, 1649, 1599, 1500, 1277, 1150, 1034, 953	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1937; found, 531.1926	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.11 (d, *J* = 0.7 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.3 Hz, 1H), 7.35 (dd, *J* = 8.5, 6.7 Hz, 1H), 7.25 – 7.08 (m, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.61 – 6.45 (m, 4H), 5.89 (dq, *J* = 9.6, 6.1 Hz, 1H), 4.83 (d, *J* = 9.7 Hz, 1H), 4.71 – 4.44 (m, 1H), 3.94 (s, 3H), 3.83 (s, 3H), 3.73 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H).
394	123139919			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{29}N_2O_5$, 448.2071; found, 449.2081.	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.41 (d, *J* = 7.9 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.32 - 7.12 (m, 10H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.87 (q, *J* = 6.3 Hz, 1H), 4.59 (p, *J* = 7.2 Hz, 1H), 3.94 (s, 3H), 1.75 (s, 3H), 1.20 - 1.14 (m, 6H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.61, 168.58, 155.36, 148.74, 146.44, 144.98, 140.40, 130.48, 128.16, 128.10, 127.93, 127.35, 126.33, 126.16, 109.43, 76.21, 56.06, 50.40, 48.00, 23.98, 17.94, 15.94.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
395	128143323		(Thin film) 3370, 2981, 1734, 1648, 1575, 1527, 1494, 1480, 1450, 1279, 1262, 1242, 1144, 1047, 909, 729, 702	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{25}H_{27}N_2O_5$, 435.1914; found, 435.1924	1:1 mixture of diastereomers. ^{1}H NMR (500 MHz, $CDCl_3$) δ 12.14 (s, 1H), 12.09 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 8.24 (d, *J* = 7.9 Hz, 1H), 8.00 (d, *J* = 5.2 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.32 – 7.17 (m, 9H), 7.16 – 7.10 (m, 1H), 6.88 (d, *J* = 5.2 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.88 – 5.75 (m, 1H), 4.56 – 4.44 (m, 1H), 4.07 (d, *J* = 5.6 Hz, 1H), 4.05 (d, *J* = 6.1 Hz, 1H), 3.95 (s, 3H), 3.94 (s, 1H), 1.29 (d, *J* = 7.2 Hz, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H).
396	128183341		(Thin film) 3372, 2985, 2228, 1738, 1649, 1576, 1529, 1504, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{25}N_4O_5$, 485.1819; found, 485.1824	^{1}H NMR (400 MHz, $CDCl_3$) δ 11.96 (s, 1H), 8.24 (d, *J* = 7.9 Hz, 1H), 7.98 (t, *J* = 5.4 Hz, 1H), 7.63 – 7.59 (m, 2H), 7.57 – 7.50 (m, 2H), 7.40 – 7.37 (m, 2H), 7.37 – 7.33 (m, 2H), 6.93 – 6.84 (m, 1H), 5.83 – 5.71 (m, 1H), 4.61 – 4.46 (m, 1H), 4.21 (d, *J* = 9.3 Hz, 1H), 3.96 (s, 3H), 1.28 (d, *J* = 6.1 Hz, 3H), 1.13 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
397	12616343		(Thin film) 2984, 1739, 1681, 1617, 1577, 1530, 1482	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{25}F_6N_2O_5$, 571.1662; found, 571.1671	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.01 (s, 1H), 8.31 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.57 (d, *J* = 8.1 Hz, 2H), 7.52 (d, *J* = 8.3 Hz, 2H), 7.42 (d, *J* = 8.3 Hz, 2H), 7.39 (d, *J* = 8.3 Hz, 2H), 6.87 (d, *J* = 5.3 Hz, 1H), 5.90 – 5.82 (m, 1H), 4.59 – 4.48 (m, 1H), 4.22 (d, *J* = 9.6 Hz, 1H), 3.94 (s, 3H), 1.29 (d, *J* = 6.2 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -62.66, -62.69.
398	12616393		(Thin film) 3364, 2981, 1713, 1650, 1607, 1529, 1481, 1418	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{35}N_2O_9$, 579.2337; found, 579.2349	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.03 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 8.00 – 7.95 (m, 3H), 7.93 (d, *J* = 8.4 Hz, 2H), 7.38 (d, *J* = 8.4 Hz, 2H), 7.35 (d, *J* = 8.3 Hz, 2H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.86 (dp, *J* = 9.1, 7.1, 6.6 Hz, 1H), 4.60 – 4.50 (m, 1H), 4.35 (qd, *J* = 7.1, 2.8 Hz, 4H), 4.22 (d, *J* = 9.7 Hz, 1H), 3.93 (s, 3H), 1.37 (t, *J* = 7.2 Hz, 3H), 1.37 (t, *J* = 7.1 Hz, 3H), 1.28 (d, *J* = 6.2 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
399	1261691[illegible]		(Thin film) 3364, 2939, 1734, 1649, 1488, 1449, 1243	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}Cl_2N_2O_7$, 563.1346; found, 563.1354	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.34 (d, *J* = 7.9 Hz, 1H), 7.96 (d, *J* = 5.2 Hz, 1H), 7.32 (d, *J* = 8.3 Hz, 1H), 7.09 (d, *J* = 8.7 Hz, 1H), 6.86 (d, *J* = 5.3 Hz, 1H), 6.85 – 6.80 (m, 3H), 6.74 (d, *J* = 2.0 Hz, 1H), 5.88 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.83 (d, *J* = 9.7 Hz, 1H), 4.54 (p, *J* = 7.2 Hz, 1H), 3.94 (s, 3H), 3.83 (s, 3H), 3.74 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.11 (d, *J* = 7.2 Hz, 3H).
400	1261691[illegible]		(Thin film) 3373, 2980, 1734, 1649, 1598, 1480, 1263, 1161, 1040	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}F_2N_2O_7$, 559.225; found, 559.2258	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.12 (s, 1H), 8.36 (d, *J* = 7.9 Hz, 1H), 7.96 (d, *J* = 5.2 Hz, 1H), 7.32 (dd, *J* = 8.5, 6.8 Hz, 1H), 7.15 (dd, *J* = 9.0, 6.9 Hz, 1H), 6.85 (d, *J* = 5.2 Hz, 1H), 6.62 – 6.39 (m, 4H), 5.99 – 5.89 (m, 1H), 4.82 (d, *J* = 10.1 Hz, 1H), 4.55 (p, *J* = 7.2 Hz, 1H), 4.03 – 3.81 (m, 7H), 1.47 (t, *J* = 7.0 Hz, 3H), 1.40 (t, *J* = 7.0 Hz, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.10 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.62, -114.03.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
401	12313921		(Thin film) 3367, 2980, 1735, 1650, 1576, 1528, 1243, 1147, 1041	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}Cl_2N_2O_7$, 591.1659; found, 591.1662	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.36 (d, *J* = 7.9 Hz, 1H), 7.96 (d, *J* = 5.2 Hz, 1H), 7.29 (d, *J* = 8.3 Hz, 1H), 7.11 (d, *J* = 8.2 Hz, 1H), 6.85 (d, *J* = 5.3 Hz, 1H), 6.80 (dd, *J* = 8.2, 2.0 Hz, 2H), 6.77 (d, *J* = 2.0 Hz, 1H), 6.70 (d, *J* = 2.1 Hz, 1H), 5.92 (dq, *J* = 10.2, 6.2 Hz, 1H), 4.82 (d, *J* = 10.0 Hz, 1H), 4.62 – 4.47 (m, 1H), 4.03 – 3.81 (m, 7H), 1.47 (t, *J* = 6.9 Hz, 3H), 1.39 (t, *J* = 6.9 Hz, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.12 (d, *J* = 7.2 Hz, 3H).
402	12313923		(Thin film) 3374, 2976, 1733, 1649, 1527, 1450, 1261, 1142, 1044	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{39}N_2O_7$, 551.2752; found, 551.2716	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.17 (s, 1H), 8.40 (d, *J* = 7.9 Hz, 1H), 7.96 (d, *J* = 5.2 Hz, 1H), 7.28 (d, *J* = 7.8 Hz, 1H), 7.13 (d, *J* = 7.6 Hz, 1H), 6.84 (d, *J* = 5.3 Hz, 1H), 6.70 – 6.50 (m, 4H), 5.96 (dq, *J* = 10.4, 6.1 Hz, 1H), 4.90 (d, *J* = 10.2 Hz, 1H), 4.53 (p, *J* = 7.2 Hz, 1H), 4.05 – 3.80 (m, 7H), 2.26 (s, 3H), 2.22 (s, 3H), 1.47 (t, *J* = 7.0 Hz, 3H), 1.39 (t, *J* = 6.9 Hz, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
403	1263647			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1944; found, 531.1937	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.04 (d, *J* = 0.7 Hz, 1H), 8.31 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.05 - 6.90 (m, 2H), 6.90 - 6.77 (m, 5H), 5.73 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.63 - 4.47 (m, 1H), 3.99 (d, *J* = 9.9 Hz, 1H), 3.94 (s, 3H), 3.86 (s, 3H), 3.85 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.08 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -137.02, -137.51.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
404	1281681			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{29}H_{35}N_2O_7$, 523.2432; found, 523.2426	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.20 (d, *J* = 8.6 Hz, 1H), 7.16 - 7.08 (m, 1H), 6.86 (d, *J* = 5.3 Hz, 1H), 6.71 - 6.63 (m, 3H), 6.59 (d, *J* = 2.8 Hz, 1H), 5.65 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.61 - 4.46 (m, 1H), 4.39 (d, *J* = 10.0 Hz, 1H), 3.94 (s, 3H), 3.75 (s, 3H), 3.72 (s, 3H), 2.37 (s, 3H), 2.30 (s, 3H), 1.30 (d, *J* = 6.2 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.70, 168.56, 157.82, 157.67, 155.37, 148.74, 140.37, 137.93, 137.69, 131.88, 131.34, 130.50, 128.88, 128.13, 116.26, 116.08, 111.28, 110.86, 109.41, 75.02, 56.04, 55.08, 47.93, 46.22, 20.36, 20.30, 18.82, 17.78.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
405	128174491		(Thin film) 3368, 2937, 2837, 1732, 1650, 1609, 1578, 1529, 1504	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_9$, 555.2337; found, 555.2327	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.16 (s, 1H), 8.37 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.32 (d, *J* = 8.4 Hz, 1H), 7.11 (d, *J* = 8.4 Hz, 1H), 6.85 (d, *J* = 5.3 Hz, 1H), 6.42 – 6.34 (m, 3H), 6.32 (d, *J* = 2.5 Hz, 1H), 5.88 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.82 (d, *J* = 9.9 Hz, 1H), 4.61 – 4.46 (m, 1H), 3.94 (s, 3H), 3.82 (s, 3H), 3.75 (s, 3H), 3.74 (s, 3H), 3.73 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H).
406	128174489		(Thin film) 3373, 2936, 1734, 1650, 1611, 1577, 1529, 1505	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_7$, 523.2439; found, 523.2437	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.16 (d, *J* = 0.6 Hz, 1H), 8.38 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.30 (d, *J* = 7.8 Hz, 1H), 7.10 (d, *J* = 8.1 Hz, 1H), 6.85 (dd, *J* = 5.3, 0.6 Hz, 1H), 6.70 – 6.59 (m, 3H), 6.57 – 6.53 (m, 1H), 5.92 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.90 (d, *J* = 9.9 Hz, 1H), 4.60 – 4.43 (m, 1H), 3.94 (s, 3H), 3.83 (s, 3H), 3.72 (s, 3H), 2.27 (s, 3H), 2.24 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
407	12317461		(Thin film) 3370, 2937, 2936, 1734, 1650, 1576, 1528, 1501	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_7$, 523.2439; found, 523.2429	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.16 (d, *J* = 0.6 Hz, 1H), 8.38 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.20 (d, *J* = 2.2 Hz, 1H), 7.05 (d, *J* = 2.2 Hz, 1H), 6.98 – 6.84 (m, 2H), 6.85 (dd, *J* = 5.4, 0.6 Hz, 1H), 6.74 (d, *J* = 8.3 Hz, 1H), 6.64 (d, *J* = 8.3 Hz, 1H), 5.88 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.96 (d, *J* = 10.3 Hz, 1H), 4.60 – 4.45 (m, 1H), 3.94 (s, 3H), 3.82 (s, 3H), 3.72 (s, 3H), 2.24 (s, 3H), 2.21 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H).
408	12317463		(Thin film) 3368, 2940, 2839, 1736, 1650, 1577, 1528, 1478, 1453, 1434	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1937; found, 531.1942	^{1}H NMR (300 MHz, $CDCl_3$) for both diastereomers of a 1:1 mixture d 12.14 (d, *J* = 0.7 Hz, 1H), 12.07 (d, *J* = 0.6 Hz, 1H), 8.32 (d, *J* = 8.6 Hz, 1H), 8.29 (d, *J* = 8.4 Hz, 1H), 7.98 (d, *J* = 5.3 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.20 – 7.11 (m, 2H), 7.01 – 6.82 (m, 12H), 5.82 – 5.63 (m, 2H), 5.04 (d, *J* = 10.1 Hz, 1H), 5.03 (d, *J* = 9.3 Hz, 1H), 4.63 – 4.42 (m, 2H), 3.96 (s, 3H), 3.95 (s, 3H), 3.93 (d, *J* = 2.1 Hz, 3H), 3.90 (d, *J* = 2.1 Hz, 3H), 3.78 (d, *J* = 1.8 Hz, 3H), 3.78 (d, *J* = 1.8 Hz, 3H), 1.37 (d, *J* = 7.2 Hz, 3H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.13 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
409	12317468		(Thin film) 3368, 2940, 2839, 1736, 1650, 1528, 1495, 1482	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1937; found, 531.1937	^{1}H NMR (300 MHz, $CDCl_3$) for the major isomer of a 2:1 mixture of diastereomers d 12.09 (d, *J* = 0.6 Hz, 1H), 8.37 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.16 (dd, *J* = 9.6, 2.9 Hz, 1H), 6.96 (dd, *J* = 9.3, 3.2 Hz, 1H), 6.90 – 6.75 (m, 4H), 6.72 (d, *J* = 4.7 Hz, 1H), 5.98 – 5.79 (m, 1H), 4.91 – 4.83 (m, 1H), 4.62 – 4.46 (m, 1H), 3.94 (s, 3H), 3.83 (s, 3H), 3.73 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.11 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
410	123184439			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_9$, 555.2337; found, 555.2317	^{1}H NMR (300 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 12.20 (s, 1H), 12.11 (s, 1H), 8.37 (d, *J* = 7.8 Hz, 2H), 7.97 (t, *J* = 5.2 Hz, 2H), 7.09 – 6.81 (m, 10H), 6.78 – 6.68 (m, 4H), 5.79 – 5.59 (m, 2H), 5.11 (dd, *J* = 9.8, 6.2 Hz, 2H), 4.52 (dp, *J* = 10.0, 7.1 Hz, 2H), 3.95 (s, 3H), 3.94 (s, 3H), 3.89 (s, 3H), 3.86 (s, 3H), 3.84 (s, 3H), 3.83 (s, 3H), 3.81 (s, 3H), 3.79 (s, 3H), 3.73 (s, 3H), 3.70 (s, 3H), 1.35 (d, *J* = 7.2 Hz, 3H), 1.27 (d, *J* = 4.7 Hz, 3H), 1.25 (d, *J* = 4.7 Hz, 3H), 1.08 (d, *J* = 7.2 Hz, 3H ^{13}C NMR (126 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 171.68, 171.35, 168.48, 168.46, 155.31, 155.29, 152.81, 152.79, 152.74, 152.72, 148.71, 148.67, 147.33, 147.31, 147.15, 147.12, 140.36, 134.98, 134.79, 134.67, 134.47, 130.57, 130.50, 123.69, 123.65, 123.62, 121.03, 120.94, 120.41, 120.24, 110.79, 110.57, 110.55, 109.35, 109.33, 73.98, 60.39, 60.37, 60.27, 56.07, 56.05, 55.65, 55.57, 55.55, 47.92, 47.90, 41.96, 41.92, 18.80, 18.72, 18.04, 17.74.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
411	12318461			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{29}H_{35}N_2O_7$, 523.2439; found, 523.2409	^{1}H NMR (300 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 12.20 (d, *J* = 0.5 Hz, 1H), 12.11 (d, *J* = 0.5 Hz, 1H), 8.36 (d, *J* = 7.8 Hz, 2H), 7.98 (dd, *J* = 5.9, 5.2 Hz, 2H), 7.32 (ddd, *J* = 12.0, 7.2, 2.1 Hz, 2H), 7.17 – 7.09 (m, 2H), 7.09 – 6.80 (m, 10H), 5.76 – 5.57 (m, 2H), 5.08 (t, *J* = 9.6 Hz, 2H), 4.59 – 4.41 (m, 2H), 3.96 (s, 3H), 3.94 (s, 3H), 3.83 (s, 3H), 3.79 (s, 3H), 3.69 (s, 3H), 3.68 (s, 3H), 2.36 – 2.19 (m, 12H), 1.33 – 1.23 (m, 9H), 1.02 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 171.66, 171.15, 168.48, 168.46, 156.89, 156.80, 156.76, 155.32, 148.74, 148.69, 140.38, 140.33, 133.98, 133.84, 133.74, 133.69, 131.21, 131.19, 131.02, 130.98, 130.56, 130.47, 130.09, 130.04, 129.77, 129.74, 126.86, 126.71, 126.59, 126.34, 123.84, 123.80, 123.73, 109.36, 74.58, 74.50, 60.29, 60.22, 60.19, 56.08, 56.07, 47.89, 47.85, 41.76, 41.70, 19.02, 18.93, 18.03, 17.65, 16.69, 16.66, 16.48, 16.45.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
412	1231946				^{1}H NMR (400 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 12.18 (s, 1H), 12.11 (s, 1H), 8.36 (d, *J* = 7.9 Hz, 1H), 8.28 (d, *J* = 7.7 Hz, 1H), 8.06 – 7.91 (m, 2H), 7.11 – 7.00 (m, 4H), 6.95 (t, *J* = 8.6 Hz, 2H), 6.89 – 6.82 (m, 4H), 6.70 (d, *J* = 8.2 Hz, 2H), 6.65 (dd, *J* = 8.0, 4.5 Hz, 2H), 5.70 (ddq, *J* = 12.3, 6.1, 3.3, 2.6 Hz, 2H), 4.62 (dd, *J* = 12.2, 9.9 Hz, 2H), 4.49 (dp, *J* = 22.0, 7.2 Hz, 2H), 3.94 (s, 3H), 3.93 (s, 3H), 3.79 (s, 3H), 3.79 (s, 3H), 3.75 (s, 3H), 3.74 (s, 3H), 2.29 (s, 3H), 2.26 (s, 3H), 2.19 (s, 3H), 2.18 (s, 3H), 1.35 – 1.25 (m, 9H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 171.69, 171.27, 168.52, 157.74, 157.55, 155.32, 148.73, 140.69, 140.38, 140.12, 139.96, 130.52, 126.17, 126.11, 125.90, 125.55, 125.38, 120.47, 120.38, 119.87, 119.66, 109.38, 108.32, 74.97, 74.87, 56.03, 55.46, 55.43, 47.92, 47.89, 47.53, 18.74, 18.72, 17.98, 17.69, 11.84, 11.74, 11.42.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
413	128186446		(Thin film) 3374, 2941, 1737, 1650, 1529, 1501, 1476, 1453, 1431, 1281, 1263, 1243, 1058, 952, 801	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{27}F_4N_2O_7$, 567.1749; found, 567.1750	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.03 (s, 1H), 8.28 (d, *J* = 8.0 Hz, 1H), 7.96 (d, *J* = 5.3 Hz, 1H), 7.05 (ddd, *J* = 8.4, 5.6, 2.2 Hz, 1H), 6.89 – 6.72 (m, 4H), 5.67 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.86 (d, *J* = 9.6 Hz, 1H), 4.56 (dt, *J* = 8.1, 7.0 Hz, 1H), 3.97 (d, *J* = 2.4 Hz, 3H), 3.95 (s, 3H), 3.83 (d, *J* = 2.1 Hz, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.20 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.48, 168.61, 155.43, 148.73, 147.12 (d, *J* = 7.3 Hz), 146.96 (d, *J* = 7.6 Hz), 145.26 (d, *J* = 13.9 Hz), 143.28 (d, *J* = 13.8 Hz), 140.44, 130.25, 129.70, 129.47, 123.09 (dd, *J* = 8.2, 3.8 Hz), 122.45 – 122.20 (m), 110.82 (d, *J* = 17.3 Hz), 110.57, 109.47, 72.53, 61.22 (d, *J* = 4.1 Hz), 61.16 (d, *J* = 3.6 Hz), 56.11, 47.96, 42.46, 18.74, 17.75.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
414	125183547		(Thin film) 3369, 2925, 1735, 1650, 1576, 1528, 1501, 1481, 1451, 1331, 1280, 1263, 1212, 1145, 1045, 801, 733	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_5$, 491.2540; found, 491.2536	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.11 – 7.00 (m, 3H), 6.94 – 6.84 (m, 4H), 5.73 – 5.64 (m, 1H), 4.55 – 4.44 (m, 2H), 3.94 (s, 3H), 2.36 (s, 3H), 2.28 (s, 3H), 2.26 (s, 6H), 1.30 (d, *J* = 6.1 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.84, 168.52, 155.34, 148.73, 140.40, 139.09, 138.45, 135.47, 135.11, 133.53, 133.33, 130.60, 130.49, 130.27, 128.60, 127.81, 127.27, 126.95, 109.39, 75.10, 56.07, 47.89, 47.34, 21.29, 21.22, 19.79, 19.75, 18.78, 17.66.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
415	1283185.49		(Thin film) 3369, 2937, 1734, 1649, 1576, 1527, 1500, 1480, 1450, 1329, 1280, 1262, 1242, 1139, 1043, 908, 799, 728	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_5$, 491.2540; found, 491.2536	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.18 (d, *J* = 7.9 Hz, 1H), 7.12 (d, *J* = 7.7 Hz, 1H), 6.98 – 6.89 (m, 3H), 6.87 – 6.81 (m, 2H), 5.69 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.58 – 4.48 (m, 1H), 4.45 (d, *J* = 10.0 Hz, 1H), 3.94 (s, 3H), 2.35 (s, 3H), 2.29 (s, 3H), 2.25 (s, 3H), 2.21 (s, 3H), 1.30 (d, *J* = 6.2 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.71, 168.51, 155.32, 148.69, 140.38, 136.43, 136.33, 136.15, 135.95, 135.90, 135.58, 131.50, 131.15, 130.49, 127.77, 127.05, 126.85, 126.58, 109.37, 75.04, 56.06, 47.89, 46.81, 20.84, 20.80, 20.12, 20.07, 18.85, 17.71.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
416	[illegible]		(Thin film) 3369, 2938, 1736, 1649, 1576, 1528, 1494, 1480, 1452, 1326, 1279, 1263, 1240, 1184, 1145, 1044, 910, 803, 728	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_5$, 499.2039; found, 499.2035	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.05 (s, 1H), 8.36 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.12 (dd, *J* = 8.4, 6.0 Hz, 1H), 7.06 – 7.00 (m, 2H), 6.93 – 6.77 (m, 4H), 5.60 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.61 – 4.50 (m, 1H), 4.48 (d, *J* = 9.6 Hz, 1H), 3.94 (s, 3H), 2.35 (s, 3H), 2.28 (s, 3H), 1.34 (d, *J* = 6.2 Hz, 3H), 1.10 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.60, 168.60, 161.36 (d, *J* = 244.0 Hz), 155.35, 148.72, 140.57 (d, *J* = 6.5 Hz), 140.48, 139.99 (d, *J* = 6.6 Hz), 132.34 (d, *J* = 3.2 Hz), 132.07 (d, *J* = 7.8 Hz), 132.00 (d, *J* = 3.3 Hz), 131.72 (d, *J* = 7.9 Hz), 130.39, 114.85 (d, *J* = 22.3 Hz), 114.32 (d, *J* = 22.3 Hz), 113.72 (d, *J* = 20.7 Hz), 113.42 (d, *J* = 20.5 Hz), 109.44, 74.21, 56.08, 47.79, 47.70, 19.41, 19.36, 18.76, 17.68.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
417	1231886-53		(Thin film) 3367, 2940, 1738, 1650, 1530, 1498, 1482, 1453, 1281, 1264, 1242, 1210, 1149, 1037, 802, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1937; found, 531.1931	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.07 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.01 – 6.90 (m, 2H), 6.88 – 6.80 (m, 3H), 6.71 (ddd, *J* = 8.9, 3.9, 3.1 Hz, 1H), 6.64 (ddd, *J* = 8.9, 3.9, 3.1 Hz, 1H), 5.85 (dq, *J* = 12.2, 6.1 Hz, 1H), 4.70 (d, *J* = 10.4 Hz, 1H), 4.61 – 4.52 (m, 1H), 3.94 (s, 3H), 3.74 (s, 6H), 1.31 (d, *J* = 6.1 Hz, 3H), 1.11 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.53, 168.53, 155.99 (d, *J* = 24.2 Hz), 155.76 – 155.59 (m), 155.32, 154.09 (d, *J* = 24.6 Hz), 148.70, 140.40, 130.42, 127.85 (d, *J* = 15.9 Hz), 127.56 (d, *J* = 16.3 Hz), 116.26 (d, *J* = 24.9 Hz), 115.93 (d, *J* = 24.8 Hz), 115.16, 114.19, 113.04 (d, *J* = 8.2 Hz), 109.39, 72.25, 56.07, 55.69, 47.85, 43.42, 18.94, 17.72.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
418	1226185[illegible]		(Thin film) 3369, 2938, 1737, 1650, 1623, 1577, 1529, 1507, 1481, 1443, 1320, 1282, 1264, 1242, 1195, 1154, 1031, 951, 849, 834, 800, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1937; found, 531.1933	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.27 (t, *J* = 8.6 Hz, 1H), 7.16 (t, *J* = 8.5 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.64 – 6.54 (m, 3H), 6.47 (dd, *J* = 12.1, 2.6 Hz, 1H), 5.79 (dq, *J* = 12.0, 6.1 Hz, 1H), 4.66 – 4.52 (m, 2H), 3.94 (s, 3H), 3.75 (s, 3H), 3.72 (s, 3H), 1.28 (d, *J* = 6.1 Hz, 3H), 1.14 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.55, 168.55, 161.19 (d, *J* = 245.6 Hz), 161.00 (d, *J* = 245.8 Hz), 159.75 (d, *J* = 11.3 Hz), 159.47 (d, *J* = 11.3 Hz), 155.35, 148.69, 140.39, 130.42, 129.87 (d, *J* = 6.2 Hz), 129.23 (d, *J* = 5.9 Hz), 119.53 (d, *J* = 14.6 Hz), 119.33 (d, *J* = 15.0 Hz), 110.16 (d, *J* = 3.0 Hz), 109.66 (d, *J* = 3.0 Hz), 109.38, 101.82 (d, *J* = 26.7 Hz), 101.59 (d, *J* = 26.6 Hz), 72.49, 56.05, 55.48 (d, *J* = 6.8 Hz), 47.90, 41.70, 18.91, 17.79.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
419	1263186-87		(Thin film) 3370, 2941, 1737, 1651, 1616, 1577, 1529, 1454, 1417, 1326, 1241, 1119, 1080, 1032, 905, 860, 801, 738	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{29}F_6N_2O_7$, 631.1873; found, 631.1876	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.54 (d, *J* = 7.8 Hz, 1H), 7.30 (d, *J* = 8.0 Hz, 1H), 7.12 (dd, *J* = 7.9, 1.6 Hz, 2H), 7.04 (d, *J* = 1.8 Hz, 1H), 6.98 (d, *J* = 1.7 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.99 (dq, *J* = 9.5, 6.2 Hz, 1H), 5.00 (d, *J* = 9.4 Hz, 1H), 4.59 – 4.48 (m, 1H), 3.94 (s, 3H), 3.89 (s, 3H), 3.81 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.62, 168.58, 157.53, 155.38, 148.73, 140.44, 132.32 (d, *J* = 8.6 Hz), 130.37, 130.18, 130.04, 129.47, 125.02, 122.83, 117.30, 116.98, 109.43, 107.83 – 106.97 (m), 72.18, 56.07, 55.75, 55.69, 47.82, 18.89, 17.66.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
420	123187787		(Thin film) 3369, 2940, 1737, 1592, 1453, 1135, 1057, 849, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1937; found, 531.1924	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.04 (d, *J* = 0.6 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.65 – 6.52 (m, 4H), 6.45 (ddt, *J* = 24.3, 10.5, 2.2 Hz, 2H), 5.69 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.61 – 4.50 (m, 1H), 3.97 – 3.91 (m, 4H), 3.77 (s, 3H), 3.75 (s, 3H), 1.29 – 1.24 (m, 3H), 1.11 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (471 MHz, $CDCl_3$) δ -110.48 – -110.65 (m), -111.08 (t, *J* = 10.0 Hz).
421	123187711		(Thin film) 3371, 2938, 1735, 1593, 1454, 1204, 1150, 1063, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_9$, 555.2337; found, 555.2329	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.46 – 6.43 (m, 4H), 6.27 (dt, *J* = 26.6, 2.2 Hz, 2H), 5.75 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.58 – 4.47 (m, 1H), 3.94 (s, 3H), 3.89 (d, *J* = 10.5 Hz, 1H), 3.76 (s, 6H), 3.74 (s, 6H), 1.30 – 1.23 (m, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.70, 168.53, 160.93, 160.75, 155.32, 148.71, 143.38, 143.10, 140.39, 130.45, 109.36, 106.42, 106.08, 98.42, 98.35, 73.11, 58.22, 56.06, 55.30, 55.26, 47.87, 19.21, 17.70.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
422	12318713		(Thin film) 3372, 2937, 1735, 1594, 1528, 1452, 1151, 1065, 730	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{29}H_{35}N_2O_7$, 523.2439; found, 523.2434	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.36 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.69 (dd, *J* = 3.8, 1.8 Hz, 2H), 6.64 (t, *J* = 1.9 Hz, 2H), 6.55 (t, *J* = 2.0 Hz, 1H), 6.49 (t, *J* = 1.9 Hz, 1H), 5.75 (dq, *J* = 10.5, 6.2 Hz, 1H), 4.58 – 4.48 (m, 1H), 3.94 (s, 3H), 3.89 (d, *J* = 10.5 Hz, 1H), 3.76 (s, 3H), 3.73 (s, 3H), 2.29 (s, 3H), 2.25 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.74, 168.51, 159.74, 159.61, 155.32, 148.70, 142.68, 142.37, 140.40, 139.79, 139.36, 130.47, 121.27, 121.12, 112.62, 112.61, 111.34, 110.82, 109.36, 73.43, 57.89, 56.06, 55.15, 55.11, 47.86, 21.69, 21.61, 19.25, 17.66.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
423	12518719		(Thin film) 3370, 2937, 1734, 1649, 1528, 1452, 1260, 1137, 1039, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_7$, 523.2439; found, 523.2434	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.02 (dd, *J* = 7.5, 0.9 Hz, 1H), 6.97 (dd, *J* = 7.6, 0.8 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.80 (dt, *J* = 7.5, 2.1 Hz, 2H), 6.74 (d, *J* = 1.6 Hz, 1H), 6.71 (d, *J* = 1.6 Hz, 1H), 5.80 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.58 – 4.47 (m, 1H), 3.96 (d, *J* = 10.3 Hz, 1H), 3.94 (s, 3H), 3.80 (s, 3H), 3.78 (s, 3H), 2.14 (s, 3H), 2.11 (s, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H).
424	12518721		(Thin film) 3370, 2938, 1736, 1515, 1442, 1275, 1216, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_7$, 531.1937; found, 531.1935	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.05 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.01 – 6.91 (m, 4H), 6.91 – 6.79 (m, 3H), 5.65 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.61 – 4.51 (m, 1H), 3.94 (s, 3H), 3.92 (d, *J* = 9.7 Hz, 1H), 3.85 (s, 3H), 3.83 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.13 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (471 MHz, $CDCl_3$) δ -134.12 (dd, *J* = 12.1, 8.5 Hz), -134.58 (dd, *J* = 12.1, 8.7 Hz).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
425	1231873[illegible]		(Thin film) 3370, 2941, 1734, 1649, 1503, 1243, 1135, 1033, 801, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_7$, 523.2439; found, 523.2428	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.13 (d, *J* = 0.6 Hz, 1H), 8.36 (d, *J* = 8.1 Hz, 1H), 7.98 (d, *J* = 5.1 Hz, 1H), 7.06 (ddd, *J* = 9.0, 7.1, 2.4 Hz, 2H), 7.01 (d, *J* = 2.0 Hz, 2H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.72 (d, *J* = 8.4 Hz, 1H), 6.68 (d, *J* = 8.4 Hz, 1H), 5.71 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.58 – 4.48 (m, 1H), 3.94 (s, 3H), 3.88 (d, *J* = 10.1 Hz, 1H), 3.77 (s, 3H), 3.74 (s, 3H), 2.16 (s, 3H), 2.12 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.03 (d, *J* = 7.1 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
426	128187311	(Thin film) 3372, 2940, 1735, 1650, 1498, 1223, 1047, 804, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_9$, 555.2337; found, 555.2304	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.14 (s, 1H), 8.38 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.05 (d, *J* = 3.0 Hz, 1H), 6.88 (d, *J* = 3.1 Hz, 1H), 6.85 (d, *J* = 5.2 Hz, 1H), 6.77 (d, *J* = 8.9 Hz, 1H), 6.72 – 6.55 (m, 3H), 5.94 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.93 (d, *J* = 10.1 Hz, 1H), 4.60 – 4.49 (m, 1H), 3.94 (s, 3H), 3.82 (s, 3H), 3.74 (s, 3H), 3.71 (s, 6H), 1.28 – 1.22 (m, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.72, 168.47, 155.28, 153.41, 153.37, 151.78, 151.70, 148.67, 140.35, 130.55, 130.51, 116.43, 115.36, 112.05, 112.00, 111.68, 111.46, 109.31, 73.26, 56.27, 56.05, 55.62, 55.57, 47.90, 18.87, 17.81.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
427	12618733		(Thin film) 3370, 2939, 1736, 1529, 1452, 1243, 1143, 1043, 801, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{35}N_2O_7$, 523.2439; found, 523.2420	^{1}H NMR (500 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.36 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.06 (d, *J* = 8.4 Hz, 1H), 6.95 (d, *J* = 8.4 Hz, 1H), 6.90 (d, *J* = 2.7 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.82 (d, *J* = 2.7 Hz, 1H), 6.66 (dd, *J* = 8.4, 2.7 Hz, 1H), 6.60 (dd, *J* = 8.3, 2.7 Hz, 1H), 5.67 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.58 – 4.49 (m, 1H), 4.46 (d, *J* = 10.1 Hz, 1H), 3.94 (s, 3H), 3.74 (s, 3H), 3.73 (s, 3H), 2.34 (s, 3H), 2.26 (s, 3H), 1.32 (d, *J* = 6.2 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H).
428	12618037		(Thin film) 3368, 2933, 1736, 1648, 1528, 1492, 1481, 1263, 1094	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}F_2N_2O_7$, 560.2283; found, 560.2285	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.05 (s, 1H), 8.32 (d, *J* = 7.9 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.43 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.23 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.11 (dd, *J* = 9.6, 2.8 Hz, 1H), 7.04 (dd, *J* = 9.6, 2.8 Hz, 1H), 6.96 – 6.89 (m, 2H), 6.87 (d, *J* = 5.2 Hz, 1H), 5.63 (dq, *J* = 8.7, 6.2 Hz, 1H), 4.71 (d, *J* = 8.8 Hz, 1H), 4.63 (d, *J* = 12.4 Hz, 1H), 4.58 – 4.36 (m, 4H), 3.94 (s, 3H), 3.43 (s, 3H), 3.38 (s, 3H), 1.30 (d, *J* = 6.2 Hz, 3H), 1.12 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.46, -115.76.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
429	123180339		(Thin film) 3369, 2975, 1736, 1649, 1527, 1481, 1262, 1093	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}F_2N_2O_7$, 587.2563; found, 587.2559	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (s, 1H), 8.33 (d, *J* = 7.9 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.45 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.21 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.12 (dd, *J* = 9.6, 2.8 Hz, 1H), 7.07 (dd, *J* = 9.7, 2.8 Hz, 1H), 6.94 – 6.84 (m, 3H), 5.73 – 5.56 (m, 1H), 4.78 – 4.63 (m, 2H), 4.60 – 4.38 (m, 4H), 3.94 (s, 3H), 3.62 – 3.42 (m, 4H), 1.33 – 1.25 (m, 6H), 1.23 (t, *J* = 7.0 Hz, 3H), 1.12 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.57, -115.85.
430	123214778			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{28}FN_2O_6$, 483.1931; found, 483.1928	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.3 Hz, 1H), 7.48 - 7.07 (m, 6H), 6.85 (d, *J* = 5.3 Hz, 1H), 6.58 (t, *J* = 8.3 Hz, 2H), 5.85 (dd, *J* = 10.1, 6.0 Hz, 1H), 4.72 - 4.38 (m, 2H), 3.93 (s, 3H), 3.83 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.13.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
431	12321477			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{28}FN_2O_5$, 467.1982; found, 467.1976	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.33 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.36 - 7.07 (m, 6H), 6.94 - 6.78 (m, 3H), 5.78 (dq, *J* = 10.4, 6.1 Hz, 1H), 4.52 (p, *J* = 7.3 Hz, 1H), 4.29 (d, *J* = 10.3 Hz, 1H), 3.93 (s, 3H), 2.39 (s, 3H), 1.28 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.60.
432	12321479			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{28}FN_2O_6$, 483.1931; found, 483.1931	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.47 - 7.20 (m, 5H), 7.20 - 7.10 (m, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.57 (td, *J* = 8.3, 2.6 Hz, 1H), 6.49 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.83 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.61 - 4.49 (m, 2H), 3.94 (s, 3H), 3.76 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.49.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
433	1232160?7			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{26}H_{28}FN_2O_5$, 467.1982; found, 467.1974	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.07 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.35 (dd, *J* = 8.7, 5.7 Hz, 1H), 7.31 - 7.13 (m, 5H), 6.92 - 6.80 (m, 2H), 6.76 (dd, *J* = 9.7, 2.8 Hz, 1H), 5.75 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.53 (p, *J* = 7.3 Hz, 1H), 4.26 (d, *J* = 10.1 Hz, 1H), 3.93 (s, 3H), 2.30 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.99.
434	1232?869			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{27}H_{30}FN_2O_6$, 497.2088; found, 497.2077	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.12 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.19 (d, *J* = 8.0 Hz, 2H), 7.17 - 7.08 (m, 1H), 7.01 (d, *J* = 8.0 Hz, 2H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.64 - 6.51 (m, 2H), 5.82 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.63 - 4.41 (m, 2H), 3.94 (s, 3H), 3.83 (s, 3H), 2.25 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.38.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
435	12321871			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{30}FN_2O_5$, 481.2139; found, 481.2133	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.38 - 7.26 (m, 1H), 7.13 (d, *J* = 8.1 Hz, 2H), 7.00 (d, *J* = 8.0 Hz, 2H), 6.95 - 6.80 (m, 3H), 5.76 (dq, *J* = 10.2, 6.2 Hz, 1H), 4.53 (p, *J* = 7.3 Hz, 1H), 4.25 (d, *J* = 10.2 Hz, 1H), 3.93 (s, 3H), 2.38 (s, 3H), 2.24 (s, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.80.
436	12321873			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{30}FN_2O_6$, 497.2088; found, 497.2076	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.33 - 7.22 (m, 1H), 7.19 - 7.13 (m, 2H), 7.06 (d, *J* = 7.8 Hz, 2H), 6.85 (d, *J* = 5.2 Hz, 1H), 6.56 (td, *J* = 8.3, 2.6 Hz, 1H), 6.48 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.80 (dq, *J* = 10.4, 6.1 Hz, 1H), 4.62 - 4.44 (m, 2H), 3.94 (s, 3H), 3.76 (s, 3H), 2.28 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.69.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
437	12321877			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{30}FN_2O_5$, 481.2139; found, 481.2121	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.07 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.33 (dd, *J* = 8.7, 5.8 Hz, 1H), 7.18 - 7.00 (m, 4H), 6.94 - 6.81 (m, 2H), 6.74 (dd, *J* = 9.7, 2.8 Hz, 1H), 5.73 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.52 (p, *J* = 7.3 Hz, 1H), 4.22 (d, *J* = 10.3 Hz, 1H), 3.94 (s, 3H), 2.29 (s, 3H), 2.28 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -117.22.
438	12324149			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{27}F_2N_2O_6$, 501.1837; found, 501.1829	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.31 - 7.23 (m, 2H), 7.12 (dd, *J* = 8.2, 6.5 Hz, 1H), 6.94 - 6.80 (m, 3H), 6.64 - 6.52 (m, 2H), 5.81 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.61 - 4.38 (m, 2H), 3.94 (s, 3H), 3.83 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.82, -116.36.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
439	12324131			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{27}F_2N_2O_5$, 485.1888; found, 485.1874	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (s, 1H), 8.33 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.33 - 7.12 (m, 3H), 6.97 - 6.83 (m, 5H), 5.73 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.68 - 4.46 (m, 1H), 4.28 (d, *J* = 10.1 Hz, 1H), 3.94 (s, 3H), 2.36 (s, 3H), 1.28 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.88, -116.28.
440	12324137			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{27}F_2N_2O_6$, 501.1837; found, 501.1824	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.30 - 7.19 (m, 3H), 6.99 - 6.90 (m, 2H), 6.86 (d, *J* = 5.3 Hz, 1H), 6.57 (td, *J* = 8.3, 2.5 Hz, 1H), 6.50 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.92 - 5.68 (m, 1H), 4.64 - 4.40 (m, 2H), 3.94 (s, 3H), 3.76 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.15, -116.03.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
441	12824163			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{27}F_2N_2O_5$, 485.1888; found, 485.1876	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.96 (d, *J* = 5.2 Hz, 1H), 7.33 (dd, *J* = 8.7, 5.7 Hz, 1H), 7.19 (dd, *J* = 8.5, 5.4 Hz, 2H), 7.02 - 6.90 (m, 2H), 6.91 - 6.82 (m, 2H), 6.77 (dd, *J* = 9.7, 2.8 Hz, 1H), 5.71 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.53 (p, *J* = 7.3 Hz, 1H), 4.26 (d, *J* = 9.9 Hz, 1H), 3.93 (s, 3H), 2.27 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.42, -116.65.
442	12324903		(Thin film) 3376, 2929, 1736, 1650, 1576, 1529, 1481, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{31}N_2O_5$, 463.2224; found, 463.2227	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (s, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.20 – 7.13 (m, 1H), 7.12 – 7.06 (m, 5H), 7.03 – 6.97 (m, 1H), 6.96 – 6.92 (m, 1H), 6.85 (d, *J* = 5.2 Hz, 1H), 5.79 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.57 – 4.44 (m, 1H), 3.97 (d, *J* = 10.4 Hz, 1H), 3.93 (s, 3H), 2.31 (s, 3H), 2.27 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
443	1263633			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_6$, 516.2021; found, 516.2018	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.35 (d, *J* = 7.7 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.23 (dd, *J* = 8.5, 6.6 Hz, 1H), 7.17 (dd, *J* = 8.6, 5.8 Hz, 1H), 6.90 – 6.73 (m, 2H), 6.57 (td, *J* = 8.3, 2.5 Hz, 1H), 6.49 (dd, *J* = 10.8, 2.5 Hz, 1H), 5.70 (dq, *J* = 10.1, 6.1 Hz, 2H), 4.75 (d, *J* = 10.2 Hz, 1H), 4.55 (p, *J* = 7.3 Hz, 1H), 3.94 (s, 3H), 3.76 (s, 3H), 2.43 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.12 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.36, -116.89.
444	1263633			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{26}F_3N_2O_6$, 519.1737; found, 519.1734	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.07 (s, 1H), 8.33 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.29 (dd, *J* = 8.4, 6.7 Hz, 1H), 7.25 – 7.14 (m, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.81 – 6.70 (m, 2H), 6.56 (td, *J* = 8.3, 2.5 Hz, 1H), 6.50 (dd, *J* = 10.8, 2.5 Hz, 1H), 5.82 (dq, *J* = 11.5, 6.2 Hz, 1H), 4.78 (d, *J* = 10.1 Hz, 1H), 4.55 (p, *J* = 7.2 Hz, 1H), 3.94 (s, 3H), 3.75 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.12 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.12 (d, J = 7.5 Hz), -112.18 (d, J = 7.5 Hz), -112.75

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
445	[illegible]			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_6$, 516.2021; found, 516.2021	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (s, 1H), 8.33 (d, *J* = 7.9 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.32 (dd, *J* = 8.6, 5.8 Hz, 1H), 7.03 (dd, *J* = 8.3, 6.7 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 6.81 (td, *J* = 8.5, 2.8 Hz, 1H), 6.75 (dd, *J* = 9.7, 2.7 Hz, 1H), 6.62 – 6.51 (m, 2H), 5.69 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.76 (d, *J* = 9.8 Hz, 1H), 4.53 (p, *J* = 7.2 Hz, 1H), 3.94 (s, 3H), 3.84 (s, 3H), 2.26 (s, 3H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.84, -117.29.
446	[illegible]			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{26}F_3N_2O_5$, 504.1821; found, 504.1818	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.04 (s, 1H), 8.31 (d, *J* = 7.8 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.32 (dd, *J* = 8.6, 5.7 Hz, 1H), 7.18 – 7.07 (m, 1H), 6.90 – 6.72 (m, 5H), 5.70 (dq, *J* = 11.7, 6.4 Hz, 1H), 4.64 (d, *J* = 10.0 Hz, 1H), 4.54 (p, *J* = 7.2 Hz, 1H), 3.94 (s, 3H), 2.27 (s, 3H), 1.29 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -111.40 (d, *J* = 7.6 Hz), -112.58 (d, *J* = 7.6 Hz), -116.32.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
447	12526287		(Thin film) 3373, 2980, 2938, 1737, 1650, 1576, 1530, 1481, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{28}FN_2O_5$, 467.1977; found, 467.1974	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.30 – 12.00 (m, 1H), 8.36 (d, *J* = 8.0 Hz, 1H), 7.96 (dd, *J* = 5.2, 1.5 Hz, 1H), 7.39 – 7.12 (m, 6H), 6.89 – 6.82 (m, 2H), 6.72 (dd, *J* = 11.3, 1.6 Hz, 1H), 5.82 (dq, *J* = 9.8, 6.0 Hz, 1H), 4.56 (p, *J* = 7.3 Hz, 1H), 4.41 (d, *J* = 10.1 Hz, 1H), 3.92 (s, 3H), 2.23 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -118.95.
448	12526289		(Thin film) 3377, 2983, 1737, 1650, 1577, 1530, 1510, 1481, 1453, 1440	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{27}F_2N_2O_5$, 485.1883; found, 485.1877	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.07 (d, *J* = 0.6 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.29 – 7.23 (m, 2H), 7.21 (t, *J* = 7.9 Hz, 1H), 7.00 – 6.93 (m, 2H), 6.89 – 6.84 (m, 2H), 6.75 – 6.71 (m, 1H), 5.81 – 5.68 (m, 1H), 4.60 – 4.49 (m, 1H), 4.39 (d, *J* = 10.1 Hz, 1H), 3.94 (s, 3H), 2.24 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.10 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.56, -118.95.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
449	123263231		(Thin film) 3378, 2982, 2932, 1738, 1650, 1576, 1530, 1481, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{30}FN_2O_5$, 481.2133; found, 481.2133	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (s, 1H), 8.36 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.1 Hz, 1H), 7.28 – 7.12 (m, 3H), 7.08 (d, *J* = 7.8 Hz, 2H), 6.88 – 6.81 (m, 2H), 6.71 (d, *J* = 11.2 Hz, 1H), 5.80 (dq, *J* = 12.1, 6.2 Hz, 1H), 4.55 (p, *J* = 7.3 Hz, 1H), 4.38 (d, *J* = 10.1 Hz, 1H), 3.92 (s, 3H), 2.28 (s, 3H), 2.22 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.09 (d, *J* = 7.0 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -119.09.
450	123263233		(Thin film) 3373, 2982, 1737, 1651, 1577, 1530, 1482, 1453	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_5$, 499.2039; found, 499.2033	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (d, *J* = 0.6 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.24 (dd, *J* = 9.4, 5.5 Hz, 1H), 7.15 (t, *J* = 7.9 Hz, 1H), 6.90 – 6.78 (m, 4H), 6.75 – 6.67 (m, 1H), 5.79 – 5.68 (m, 1H), 4.64 (d, *J* = 10.2 Hz, 1H), 4.61 – 4.52 (m, 1H), 3.94 (s, 3H), 2.39 (s, 3H), 2.24 (s, 3H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.13 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.44, -118.17.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
451	12326297		(Thin film) 3375, 2982, 2939, 1739, 1651, 1577, 1530, 1504, 1481, 1453	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{26}F_3N_2O_5$, 503.1788; found, 503.1784	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.06 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.32 – 7.20 (m, 2H), 6.91 – 6.70 (m, 5H), 5.86 – 5.76 (m, 1H), 4.70 (d, *J* = 10.0 Hz, 1H), 4.62 – 4.51 (m, 1H), 3.94 (s, 3H), 2.25 (s, 3H), 1.29 (d, *J* = 6.2 Hz, 3H), 1.12 (d, *J* = 7.3 Hz, 3H).
452	12327931			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{28}FN_2O_5$, 467.1982; found, 467.1969	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.6 Hz, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.31 - 7.19 (m, 4H), 7.17 - 7.12 (m, 1H), 7.12 - 7.02 (m, 2H), 6.91 (dd, *J* = 9.3, 8.3 Hz, 1H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.77 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.59 - 4.46 (m, 1H), 3.99 (d, *J* = 10.2 Hz, 1H), 3.94 (s, 3H), 2.23 (d, *J* = 1.9 Hz, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -120.09.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
453	[illegible]			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{27}H_{29}F_2N_2O_6$, 515.1993; found, 515.1980	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (s, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 5.2 Hz, 1H), 7.25 - 7.20 (m, 1H), 7.12 - 7.01 (m, 2H), 6.93 - 6.82 (m, 2H), 6.57 (td, *J* = 8.3, 2.5 Hz, 1H), 6.50 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.76 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.61 - 4.48 (m, 1H), 4.45 (d, *J* = 10.2 Hz, 1H), 3.94 (s, 3H), 3.77 (s, 3H), 2.22 (d, *J* = 1.9 Hz, 3H), 1.22 (d, *J* = 6.1 Hz, 3H), 1.07 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.33, -120.33.
454	[illegible]		(Thin film) 3373, 2980, 2938, 1735, 1649, 1576, 1528, 1495, 1480, 1451, 1332, 1280, 1263, 1242, 1213, 1144, 1048, 799, 733, 699	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{29}N_2O_5$, 449.2071; found, 449.2063	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.10 (d, *J* = 0.6 Hz, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.31 – 7.27 (m, 2H), 7.24 – 7.15 (m, 4H), 7.15 – 7.06 (m, 3H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.81 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.57 – 4.46 (m, 1H), 4.02 (d, *J* = 10.2 Hz, 1H), 3.94 (s, 3H), 2.28 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.96 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.68, 168.51, 155.33, 148.70, 141.68, 140.40, 138.15, 136.55, 130.48, 129.48, 128.48, 127.93, 126.59, 109.38, 73.63, 57.57, 56.07, 47.85, 20.98, 19.24, 17.61.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
455	1232779339		(Thin film) 3367, 2981, 2938, 1736, 1649, 1576, 1529, 1480, 1451, 1333, 1281, 1263, 1213, 1146, 1048, 801, 734, 700	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{29}N_2O_5$, 449.2071; found, 449.2068	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.11 (d, *J* = 0.6 Hz, 1H), 8.35 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.29 – 7.24 (m, 4H), 7.20 – 7.15 (m, 3H), 7.03 (d, *J* = 7.9 Hz, 2H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.80 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.58 – 4.47 (m, 1H), 4.02 (d, *J* = 10.0 Hz, 1H), 3.94 (s, 3H), 2.25 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.01 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.65, 168.50, 155.33, 148.69, 141.41, 140.38, 138.28, 136.20, 130.47, 129.12, 128.74, 128.05, 127.90, 126.82, 109.36, 73.61, 57.44, 56.06, 47.86, 20.92, 19.23, 17.67.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
456	1232796-61		(Thin film) 3369, 2982, 2937, 1735, 1649, 1576, 1528, 1508, 1480, 1451, 1329, 1280, 1263, 1218, 1157, 1049, 815, 800, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{28}FN_2O_5$, 467.1977; found, 467.1974	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.09 (s, 1H), 8.34 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.25 – 7.21 (m, 2H), 7.18 – 7.13 (m, 2H), 7.04 (d, *J* = 7.9 Hz, 2H), 7.00 – 6.92 (m, 2H), 6.86 (d, *J* = 5.2 Hz, 1H), 5.75 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.59 – 4.47 (m, 1H), 4.02 (d, *J* = 9.8 Hz, 1H), 3.94 (s, 3H), 2.26 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.61, 168.52, 161.66 (d, *J* = 245.6 Hz), 155.35, 148.71, 140.40, 138.01, 137.20 (d, *J* = 3.3 Hz), 136.40, 130.44, 129.53 (d, *J* = 7.9 Hz), 129.22, 127.84, 115.57 (d, *J* = 21.1 Hz), 109.39, 73.44, 56.56, 56.07, 47.85, 20.92, 19.14, 17.66.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
457	1553798		(Thin film) 3373, 2982, 2938, 1736, 1649, 1576, 1529, 1509, 1480, 1452, 1330, 1280, 1263, 1242, 1220, 1159, 1048, 815, 799, 732, 699	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{25}H_{26}FN_2O_5$, 453.1820; found, 453.1810	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.07 (d, *J* = 0.6 Hz, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.33 – 7.19 (m, 7H), 6.96 – 6.88 (m, 2H), 6.87 (dd, *J* = 5.3, 0.6 Hz, 1H), 5.78 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.61 – 4.47 (m, 1H), 4.05 (d, *J* = 10.0 Hz, 1H), 3.94 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.62, 168.57, 161.59 (d, *J* = 245.2 Hz), 155.38, 148.73, 140.92, 140.43, 137.11 (d, *J* = 3.5 Hz), 130.39, 129.53 (d, *J* = 7.8 Hz), 128.88, 127.99, 127.08, 115.29 (d, *J* = 21.2 Hz), 109.43, 73.50, 57.03, 56.08, 47.87, 19.21, 17.69.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
458	[illegible]		(Thin film) 3366, 2979, 2939, 1736, 1649, 1576, 1529, 1509, 1481, 1451, 1332, 1264, 1242, 1220, 1159, 1049, 815, 800, 770, 732	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{26}H_{28}FN_2O_5$, 467.1977; found, 467.1969	^{1}H NMR (300 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.6 Hz, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.30 – 7.21 (m, 2H), 7.14 (d, *J* = 8.3 Hz, 2H), 7.09 (d, *J* = 8.2 Hz, 2H), 6.95 – 6.84 (m, 3H), 5.76 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.59 – 4.47 (m, 1H), 4.01 (d, *J* = 10.1 Hz, 1H), 3.94 (s, 3H), 2.29 (s, 3H), 1.25 (d, *J* = 6.1 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.61, 168.55, 161.53 (d, *J* = 244.9 Hz), 155.37, 148.71, 140.41, 137.93, 137.41 (d, *J* = 3.3 Hz), 136.72, 130.39, 129.54, 129.41 (d, *J* = 7.9 Hz), 127.82, 115.24 (d, *J* = 21.3 Hz), 109.41, 73.55, 56.67, 56.07, 47.87, 20.96, 19.20, 17.68.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
459	12327969		(Thin film) 3376, 2984, 2938, 1737, 1649, 1576, 1529, 1503, 1481, 1452, 1327, 1281, 1263, 1243, 1212, 1146, 1050, 966, 849, 800, 733, 699	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{25}H_{25}F_2N_2O_5$, 471.1726; found, 471.1726	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.07 (d, *J* = 0.6 Hz, 1H), 8.32 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.35 – 7.20 (m, 5H), 7.19 – 7.10 (m, 1H), 6.88 – 6.75 (m, 3H), 5.88 – 5.77 (m, 1H), 4.58 – 4.47 (m, 1H), 4.42 (d, *J* = 10.1 Hz, 1H), 3.94 (s, 3H), 1.29 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.56, 168.54, 162.05 (dd, *J* = 172.5, 11.9 Hz), 161.09 – 159.28 (m), 155.35, 148.72, 140.42, 140.02, 130.41, 130.23 – 129.63 (m), 128.61, 128.18, 127.03, 124.46 – 123.89 (m), 111.63 (d, *J* = 21.2 Hz), 109.41, 104.54 – 103.81 (m), 72.76, 56.08, 49.36, 47.83, 18.90, 17.60.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
460	1232793-73		(Thin film) 3370, 2983, 2937, 1737, 1649, 1576, 1529, 1502, 1481, 1452, 1439, 1329, 1281, 1264, 1243, 1211, 1147, 1050, 966, 849, 801, 732	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{26}H_{27}F_2N_2O_5$, 485.1883; found, 485.1880	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.08 (d, *J* = 0.6 Hz, 1H), 8.33 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.26 – 7.21 (m, 1H), 7.20 – 7.15 (m, 2H), 7.07 – 7.01 (m, 2H), 6.88 – 6.85 (m, 1H), 6.84 – 6.74 (m, 2H), 5.86 – 5.72 (m, 1H), 4.59 – 4.48 (m, 1H), 4.39 (d, *J* = 9.9 Hz, 1H), 3.94 (s, 3H), 2.26 (s, 3H), 1.28 (d, *J* = 6.3 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.55, 168.53, 161.99 (dd, *J* = 171.0, 11.9 Hz), 160.02 (dd, *J* = 170.8, 11.7 Hz), 155.36, 148.72, 140.41, 136.92, 136.63, 130.43, 129.97 – 129.69 (m), 129.24, 128.06, 124.73 – 124.42 (m), 111.58 (d, *J* = 17.7 Hz), 109.40, 104.83 – 103.37 (m), 72.82, 56.08, 48.91, 47.85, 20.95, 18.90, 17.67.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
461	123279973		(Thin film) 3371, 2984, 2939, 1738, 1649, 1604, 1577, 1529, 1503, 1481, 1452, 1439, 1326, 1281, 1264, 1242, 1223, 1160, 1050, 966, 849, 810, 732	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{25}H_{24}F_3N_2O_5$, 489.1632; found, 489.1624	^{1}H NMR (400 MHz, $CDCl_3$) δ 12.05 (d, *J* = 0.6 Hz, 1H), 8.30 (d, *J* = 8.0 Hz, 1H), 7.98 (d, *J* = 5.2 Hz, 1H), 7.31 – 7.17 (m, 3H), 6.97 – 6.75 (m, 5H), 5.83 – 5.73 (m, 1H), 4.59 – 4.49 (m, 1H), 4.40 (d, *J* = 10.0 Hz, 1H), 3.95 (s, 3H), 1.28 (d, *J* = 6.1 Hz, 3H), 1.08 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 171.51, 168.59, 162.96 – 162.09 (m), 161.43 – 159.21 (m), 155.41, 148.74, 140.45, 135.75, 130.33, 129.73 (d, *J* = 8.0 Hz), 124.13 (dd, *J* = 15.2, 3.7 Hz), 115.43 (d, *J* = 21.3 Hz), 111.73 (d, *J* = 25.0 Hz), 109.46, 104.30 (t, *J* = 25.8 Hz), 72.66, 56.10, 48.70, 47.86, 18.91, 17.67.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
462	125366233			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{28}H_{29}F_2N_2O_7$, 543.1931; found, 543.1937.	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.28 (d, *J* = 5.4 Hz, 1H), 8.14 (d, *J* = 7.8 Hz, 1H), 7.26 – 7.15 (m, 4H), 6.94 (dddd, *J* = 24.3, 8.7, 6.9, 2.1 Hz, 5H), 5.76 – 5.63 (m, 3H), 4.55 (p, *J* = 7.3 Hz, 1H), 4.05 (d, *J* = 8.9 Hz, 1H), 3.92 (s, 3H), 2.06 (s, 3H), 1.32 (d, *J* = 7.1 Hz, 3H), 1.22 (d, *J* = 6.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 171.92, 170.28, 162.91, 162.81, 162.77, 160.46, 160.37, 145.63, 144.13, 142.28, 136.93, 136.90, 136.54, 136.51, 129.82, 129.74, 129.70, 129.62, 115.72, 115.51, 115.43, 115.22, 109.60, 89.60, 73.10, 56.20, 55.58, 48.04, 20.85, 20.81, 18.94, 18.05.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
463	1253662-23-6			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{28}H_{29}F_2N_2O_7$, 543.1931; found, 543.1937.	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.20 (d, *J* = 7.9 Hz, 1H), 7.28 – 7.17 (m, 4H), 7.02 – 6.89 (m, 5H), 5.76 – 5.66 (m, 3H), 4.55 (p, *J* = 7.3 Hz, 1H), 4.04 (d, *J* = 9.7 Hz, 1H), 3.90 (s, 3H), 2.05 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.24, 170.26, 162.95, 162.90, 162.86, 160.51, 160.42, 160.28, 145.68, 143.98, 142.41, 136.94, 136.91, 136.86, 136.82, 129.62, 129.57, 129.54, 129.49, 115.79, 115.58, 115.49, 115.28, 109.58, 89.51, 73.04, 56.18, 56.13, 48.05, 20.85, 19.14, 17.81.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
464	1258179869	(Thin film) 3378, 2984, 1738, 1676, 1496, 1202, 1003, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_7$, 571.2250; found, 571.2265	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.3 Hz, 1H), 8.21 (d, *J* = 7.9 Hz, 1H), 7.26 – 7.22 (m, 1H), 7.14 (dd, *J* = 8.6, 5.8 Hz, 1H), 6.94 (d, *J* = 5.4 Hz, 1H), 6.89 – 6.77 (m, 4H), 5.73 (s, 2H), 5.62 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.56 (p, *J* = 7.2 Hz, 1H), 4.44 (d, *J* = 9.8 Hz, 1H), 3.91 (s, 3H), 2.38 (s, 3H), 2.33 (s, 3H), 2.06 (s, 3H), 1.30 (d, *J* = 6.2 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.30, 170.26, 162.91, 161.19 (d, *J* = 245.6 Hz), 161.10 (d, *J* = 245.0 Hz), 160.28, 145.70, 143.98, 142.43, 139.12 (d, *J* = 7.4 Hz), 138.81 (d, *J* = 7.5 Hz), 134.89 (d, *J* = 3.3 Hz), 134.39 (d, *J* = 3.2 Hz), 129.37 (d, *J* = 8.2 Hz), 128.75 (d, *J* = 8.3 Hz), 117.41 (d, *J* = 20.9 Hz), 117.10 (d, *J* = 20.9 Hz), 112.94 (d, *J* = 20.9 Hz), 112.63 (d, *J* = 20.8 Hz), 109.59, 89.52, 74.29, 56.19, 48.07, 46.40, 20.86, 20.20, 20.12, 18.82, 17.86. ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.57, -117.03.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
465	12587991		(Thin film) 3379, 2962, 1737, 1676, 1506, 1201, 1004, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{36}H_{47}N_2O_7$, 619.3378; found, 619.3388	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 7.32 – 7.20 (m, 8H), 6.93 (d, *J* = 5.4 Hz, 1H), 5.79 (dq, *J* = 10.2, 6.1 Hz, 1H), 5.73 – 5.70 (m, 2H), 4.50 (p, *J* = 7.2 Hz, 1H), 3.98 (d, *J* = 10.2 Hz, 1H), 3.89 (s, 3H), 2.05 (s, 3H), 1.27 – 1.22 (m, 21H), 0.78 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.43, 170.23, 162.84, 160.24, 149.56, 149.37, 145.69, 143.91, 142.62, 138.80, 138.26, 127.69, 127.65, 125.60, 125.33, 109.49, 89.55, 73.71, 57.25, 56.15, 48.04, 34.36, 34.31, 31.30, 20.85, 19.34, 17.50.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
466	[illegible]		(Thin film) 3378, 2959, 1737, 1676, 1506, 1202, 1044, 1004, 828, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{34}H_{43}N_2O_7$, 591.3065; found, 591.3077	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 7.8 Hz, 1H), 7.28 – 7.19 (m, 4H), 7.16 – 7.06 (m, 4H), 6.93 (d, *J* = 5.4 Hz, 1H), 5.78 (dq, *J* = 10.2, 6.1 Hz, 1H), 5.72 (d, *J* = 0.9 Hz, 2H), 4.51 (p, *J* = 7.2 Hz, 1H), 3.98 (d, *J* = 10.2 Hz, 1H), 3.89 (s, 3H), 2.81 (dh, *J* = 10.6, 6.9 Hz, 2H), 2.05 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.18 (dd, *J* = 13.6, 6.9 Hz, 12H), 0.81 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.42, 170.24, 162.85, 160.24, 147.29, 147.13, 145.69, 143.92, 142.63, 139.19, 138.71, 127.95, 127.92, 126.75, 126.48, 109.49, 89.55, 73.66, 57.39, 56.16, 48.05, 33.65, 33.61, 23.99, 23.97, 23.93, 20.86, 19.33, 17.57.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
467	1288179-71		(Thin film) 3388, 2979, 1756, 1677, 1503, 1203, 1044, 1004, 970, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_7$, 563.2752; found, 563.2764	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.3 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 7.07 – 6.90 (m, 7H), 5.82 – 5.67 (m, 3H), 4.54 (p, *J* = 7.2 Hz, 1H), 3.90 (s, 3H), 2.17 (t, *J* = 11.4 Hz, 12H), 2.06 (s, 3H), 1.28 – 1.20 (m, 4H), 0.93 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.41, 170.25, 162.84, 160.23, 145.69, 143.90, 142.67, 139.25, 139.11, 136.78, 136.34, 134.93, 134.51, 129.90, 129.62, 129.39, 129.38, 125.30, 125.08, 109.48, 89.55, 73.49, 57.11, 56.16, 48.12, 20.86, 19.87, 19.80, 19.32, 19.29, 19.24, 17.80.
468	1288179-29			ESIMS *m/z* 541.2 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 7.7 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.32 – 7.21 (m, 1H), 7.14 (dd, *J* = 8.5, 5.8 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.83 (ddd, *J* = 15.6, 10.1, 7.6 Hz, 4H), 5.62 (dq, *J* = 9.6, 6.1 Hz, 1H), 4.62 – 4.50 (m, 1H), 4.43 (d, *J* = 9.7 Hz, 1H), 3.88 (s, 3H), 2.38 (s, 3H), 2.36 (s, 3H), 2.31 (s, 3H), 1.29 (d, *J* = 6.2 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.52, -116.96.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
469	126883-31	(Thin film) 3379, 2962, 1772, 1677, 1508, 1198, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{35}H_{45}N_2O_6$, 589.3272; found, 589.3289	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.43 (d, *J* = 7.9 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.26 (d, *J* = 12.1 Hz, 8H), 6.98 (d, *J* = 5.4 Hz, 1H), 5.78 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.56 – 4.43 (m, 1H), 3.97 (d, *J* = 10.2 Hz, 1H), 3.88 (s, 3H), 2.37 (s, 3H), 1.25 (d, *J* = 12.6 Hz, 21H), 0.77 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.32, 168.88, 162.23, 159.40, 149.55, 149.37, 146.64, 141.60, 138.76, 138.25, 137.43, 127.70, 127.65, 125.60, 125.32, 109.67, 73.75, 57.22, 56.25, 47.81, 34.35, 34.31, 31.31, 31.30, 20.73, 19.32, 17.69.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
470	125088033		(Thin film) 3379, 2960, 1772, 1677, 1509, 1201, 1175, 1047, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{33}H_{41}N_2O_6$, 561.2959; found, 561.2977	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 7.6 Hz, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 7.22 (dd, *J* = 8.3, 2.5 Hz, 4H), 7.15 – 7.04 (m, 4H), 6.98 (d, *J* = 5.5 Hz, 1H), 5.78 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.54 – 4.43 (m, 1H), 3.97 (d, *J* = 10.2 Hz, 1H), 3.89 (s, 3H), 2.82 (dp, *J* = 11.9, 6.9 Hz, 2H), 2.37 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.18 (dd, *J* = 14.7, 6.9 Hz, 12H), 0.80 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.31, 168.89, 162.23, 159.41, 147.28, 147.13, 146.64, 141.61, 139.14, 138.70, 137.43, 127.96, 127.92, 126.75, 126.47, 109.68, 73.70, 57.36, 56.25, 47.83, 33.64, 33.61, 23.97, 23.93, 20.74, 19.31, 17.75.
471	125088036		(Thin film) 3379, 2978, 1771, 1676, 1505, 1450, 1310, 1199, 1050, 907, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_6$, 533.2646; found, 533.2659	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.48 – 8.37 (m, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.09 – 6.90 (m, 7H), 5.74 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.58 – 4.46 (m, 1H), 3.98 – 3.83 (m, 4H), 2.38 (s, 3H), 2.17 (dd, *J* = 12.4, 11.0 Hz, 12H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.92 (d, *J* = 7.1 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
472	12310037		(Thin film) 3382, 2982, 1737, 1677, 1501, 1202	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_9$, 603.2149; found, 603.2163	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 7.9 Hz, 1H), 7.38 (m, 1H), 7.13 (m, 1H), 6.94 (d, *J* = 5.4 Hz, 1H), 6.61 – 6.47 (m, 4H), 5.87 (dq, *J* = 9.7, 6.2 Hz, 1H), 5.72 (s, 2H), 4.84 (d, *J* = 9.6 Hz, 1H), 4.64 – 4.48 (m, 1H), 3.90 (s, 3H), 3.82 (s, 3H), 3.74 (s, 3H), 2.06 (s, 3H), 1.22 (d, *J* = 6.2 Hz, 3H), 1.03 (d, *J* = 7.2 Hz, 3H).
473	12310057		(Thin film) 3367, 2985, 1749, 1694, 1506, 1201, 1130, 828	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{26}F_5N_2O_7$, 597.1655; found, 597.1672	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.77 – 8.42 (m, 1H), 8.42 – 8.15 (m, 1H), 7.26 – 7.15 (m, 4H), 7.06 – 6.86 (m, 5H), 5.84 – 5.66 (m, 3H), 5.37 – 5.19 (m, 1H), 4.13 – 4.03 (m, 1H), 4.04 – 3.83 (m, 3H), 2.09 – 1.99 (m, 3H), 1.30 – 1.16 (m, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
474	12514167			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}N_2O_7$, 521.2282; found, 521.2292.	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.28 (t, *J* = 7.2 Hz, 2H), 7.35 - 7.12 (m, 10H), 6.94 (d, *J* = 5.4 Hz, 1H), 5.86 (q, *J* = 6.3 Hz, 1H), 5.75 - 5.68 (m, 2H), 4.62 (p, *J* = 7.2 Hz, 1H), 3.90 (s, 3H), 2.06 (s, 3H), 1.75 (s, 3H), 1.16 (d, *J* = 6.3 Hz, 3H), 1.12 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.27, 170.20, 162.88, 160.26, 146.57, 145.66, 145.11, 143.98, 142.56, 128.18, 128.09, 127.92, 127.40, 126.28, 126.11, 109.53, 89.54, 75.94, 56.17, 50.41, 48.23, 23.95, 20.84, 18.13, 15.97.
475	12614197		(Thin film) 3379, 2940, 1769, 1736, 1677, 1598, 1500, 1277, 1192, 1174, 1151, 1033, 953	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2043; found, 573.2055	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 4.6 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.37 (dd, *J* = 8.5, 6.7 Hz, 1H), 7.12 (dd, *J* = 8.3, 6.7 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.63 – 6.44 (m, 4H), 5.86 (dq, *J* = 9.5, 6.2 Hz, 1H), 4.83 (d, *J* = 9.5 Hz, 1H), 4.62 – 4.45 (m, 1H), 3.90 (s, 3H), 3.82 (s, 3H), 3.73 (s, 3H), 2.38 (s, 3H), 1.21 (d, *J* = 6.2 Hz, 3H), 1.01 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.49, -113.81.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
476	12514348		(Thin film) 3382, 3028, 2984, 1736, 1677, 1498, 1451, 1436, 1310, 1201, 1043, 967, 910, 829, 728, 703	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{31}N_2O_7$, 507.2126; found, 507.2141	1:1 mixture of diastereomers. ^{1}H NMR (500 MHz, $CDCl_3$) δ 8.52 – 8.46 (m, 1H), 8.20 (d, *J* = 7.6 Hz, 1H), 8.16 (d, *J* = 7.5 Hz, 1H), 7.33 – 7.10 (m, 11H), 5.86 – 5.74 (m, 3H), 4.61 – 4.48 (m, 1H), 4.10 – 4.04 (m, 1H), 4.02 (s, 3H), 2.06 (s, 3H), 2.05 (s, 3H), 1.31 (d, *J* = 7.1 Hz, 3H), 1.28 – 1.20 (m, 3H), 0.91 (d, *J* = 7.2 Hz, 3H).
477	12515348		(Thin film) 3376, 2985, 2228, 1769, 1738, 1674, 1505	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{27}N_4O_6$, 527.1925; found, 527.1931	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.30 (d, *J* = 5.5 Hz, 1H), 7.60 (d, *J* = 8.3 Hz, 2H), 7.54 (d, *J* = 8.3 Hz, 2H), 7.41 – 7.30 (m, 4H), 7.03 (d, *J* = 5.5 Hz, 1H), 5.76 (dq, *J* = 8.8, 6.1 Hz, 1H), 4.60 – 4.52 (m, 1H), 4.20 (d, *J* = 9.0 Hz, 1H), 3.95 (d, *J* = 9.9 Hz, 1H), 3.92 (s, 3H), 2.39 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.08 (d, *J* = 7.2 Hz, 3H)
478	12516347		(Thin film) 3387, 2986, 1772, 1739, 1677, 1617, 1509	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{27}F_6N_2O_6$, 613.1768; found, 613.178	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.38 (d, *J* = 7.9 Hz, 1H), 8.32 – 8.29 (m, 1H), 7.56 (d, *J* = 7.9 Hz, 2H), 7.52 (d, *J* = 8.5 Hz, 2H), 7.44 – 7.36 (m, 4H), 7.01 (dd, *J* = 5.5, 3.5 Hz, 1H), 5.88 – 5.79 (m, 1H), 4.59 – 4.53 (m, 1H), 4.22 (d, *J* = 9.2 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 1.28 – 1.22 (m, 3H), 0.98 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
479	125153333		(Thin film) 3379, 2980, 1772, 1714, 1678, 1508	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{33}H_{37}N_2O_{10}$, 621.2443; found, 621.2451	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.38 (d, *J* = 8.7 Hz, 1H), 8.32 – 8.29 (m, 1H), 7.97 (d, *J* = 8.3 Hz, 2H), 7.93 (d, *J* = 8.2 Hz, 2H), 7.38 (d, *J* = 8.3 Hz, 2H), 7.34 (d, *J* = 8.4 Hz, 2H), 7.00 (d, *J* = 5.5 Hz, 1H), 5.85 (dq, *J* = 9.6, 6.1 Hz, 1H), 4.59 – 4.50 (m, 1H), 4.38 – 4.30 (m, 4H), 4.21 (d, *J* = 9.7 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 1.36 (t, *J* = 7.3 Hz, 6H), 1.25 (d, *J* = 6.3 Hz, 3H), 0.98 (d, *J* = 7.1 Hz, 3H).
480	125163366		(Thin film) 3379, 2983, 1714, 1676, 1607, 1507	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{34}H_{39}N_2O_{11}$, 651.2548; found, 651.2560	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.28 – 8.24 (m, 1H), 8.20 (d, *J* = 7.8 Hz, 1H), 8.00 – 7.92 (m, 4H), 7.42 – 7.31 (m, 4H), 6.95 (d, *J* = 5.4 Hz, 1H), 5.85 (dp, *J* = 9.4, 7.2, 6.6 Hz, 1H), 5.73 – 5.67 (m, 2H), 4.56 (p, *J* = 6.9 Hz, 1H), 4.39 – 4.28 (m, 4H), 4.22 (d, *J* = 9.7 Hz, 1H), 3.91 (d, *J* = 1.5 Hz, 3H), 2.06 (s, 3H), 1.37 (t, *J* = 7.2 Hz, 6H), 1.27 (d, *J* = 6.2 Hz, 3H), 0.98 (d, *J* = 7.1 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
481	1231992		(Thin film) 3379, 2939, 1737, 1677, 1490, 1247, 1202, 1033	HRMS-ESI (*m/z*) ($[M+Na]^+$) calcd for $C_{30}H_{32}Cl_2N_2NaO_9$, 657.1377; found, 657.1387	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.22 (d, *J* = 7.9 Hz, 1H), 7.34 (d, *J* = 8.3 Hz, 1H), 7.09 (d, *J* = 8.0 Hz, 1H), 6.94 (d, *J* = 5.4 Hz, 1H), 6.88 – 6.82 (m, 2H), 6.81 (s, 1H), 6.76 (d, *J* = 2.0 Hz, 1H), 5.86 (dq, *J* = 9.7, 6.2 Hz, 1H), 5.72 (s, 2H), 4.84 (d, *J* = 9.6 Hz, 1H), 4.57 (p, *J* = 7.2 Hz, 1H), 3.90 (s, 3H), 3.83 (s, 3H), 3.74 (s, 3H), 2.06 (s, 3H), 1.22 (d, *J* = 6.2 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H).
482	1231992		(Thin film) 3380, 2981, 1736, 1677, 1597, 1500, 1274, 1202, 1003	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{37}F_2N_2O_9$, 631.2462; found, 631.2461	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.25 (t, *J* = 6.6 Hz, 2H), 7.34 (dd, *J* = 8.5, 6.9 Hz, 1H), 7.13 (td, *J* = 7.9, 6.7, 4.7 Hz, 1H), 6.93 (d, *J* = 5.4 Hz, 1H), 6.60 – 6.36 (m, 4H), 5.90 (dq, *J* = 10.2, 6.2 Hz, 1H), 5.73 (s, 2H), 4.83 (d, *J* = 10.1 Hz, 1H), 4.63 – 4.48 (m, 1H), 4.08 – 3.79 (m, 7H), 2.06 (s, 3H), 1.47 (t, *J* = 6.9 Hz, 3H), 1.40 (t, *J* = 6.9 Hz, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.76, -114.20.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
483	1231393		(Thin film) 3378, 2980, 1736, 1677, 1591, 1491, 1247, 1201, 1040	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{37}Cl_2N_2O_9$, 663.1871; found, 663.1877	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.29 – 8.19 (m, 2H), 7.31 (d, *J* = 8.3 Hz, 1H), 7.11 (d, *J* = 8.2 Hz, 1H), 6.94 (d, *J* = 5.4 Hz, 1H), 6.86 – 6.73 (m, 3H), 6.72 (d, *J* = 2.0 Hz, 1H), 5.89 (dq, *J* = 9.9, 6.2 Hz, 1H), 5.73 (s, 2H), 4.83 (d, *J* = 9.8 Hz, 1H), 4.57 (p, *J* = 7.2 Hz, 1H), 4.05 – 3.83 (m, 7H), 2.06 (s, 3H), 1.47 (t, *J* = 6.9 Hz, 3H), 1.39 (t, *J* = 6.9 Hz, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H).
484	1231393		(Thin film) 3378, 2978, 1758, 1734, 1676, 1504, 1200, 1043	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{34}H_{43}N_2O_9$, 623.2963; found, 623.2962	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.29 – 8.18 (m, 2H), 7.30 (d, *J* = 7.8 Hz, 1H), 7.13 (d, *J* = 7.7 Hz, 1H), 6.92 (d, *J* = 5.4 Hz, 1H), 6.67 – 6.57 (m, 3H), 6.54 (s, 1H), 5.93 (dq, *J* = 10.3, 6.1 Hz, 1H), 5.72 (s, 1H), 5.72 (s, 1H), 4.90 (d, *J* = 10.1 Hz, 1H), 4.55 (p, *J* = 7.1 Hz, 1H), 4.04 – 3.81 (m, 7H), 2.26 (s, 3H), 2.23 (s, 3H), 2.05 (d, *J* = 1.8 Hz, 3H), 1.47 (t, *J* = 7.0 Hz, 3H), 1.39 (t, *J* = 7.0 Hz, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
485	1291666			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2051; found, 573.2044	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39 (d, *J* = 6.9 Hz, 1H), 8.29 (d, *J* = 5.4 Hz, 1H), 7.05 - 6.92 (m, 3H), 6.89 (dd, *J* = 8.1, 2.1 Hz, 1H), 6.82 (dddd, *J* = 15.8, 8.3, 4.0, 2.1 Hz, 3H), 5.72 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.65 - 4.48 (m, 1H), 3.99 (d, *J* = 9.8 Hz, 1H), 3.88 (s, 3H), 3.85 (s, 6H), 2.38 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.02 (d, *J* = 7.1 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -137.20, -137.68.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
486	12316567			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_8$, 565.2542; found, 565.2535	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.43 (d, *J* = 7.8 Hz, 1H), 8.28 (d, *J* = 5.4 Hz, 1H), 7.21 (d, *J* = 8.5 Hz, 1H), 7.17 - 7.09 (m, 1H), 6.96 (d, *J* = 5.5 Hz, 1H), 6.79 - 6.57 (m, 4H), 5.63 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.64 - 4.50 (m, 1H), 4.38 (d, *J* = 9.9 Hz, 1H), 3.86 (s, 3H), 3.73 (s, 3H), 3.71 (s, 3H), 2.38 (s, 3H), 2.35 (s, 3H), 2.31 (s, 3H), 1.29 (d, *J* = 6.1 Hz, 3H), 1.01 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.25, 168.81, 162.28, 159.43, 157.80, 157.67, 146.63, 141.55, 137.98, 137.71, 137.44, 131.95, 131.46, 128.85, 128.22, 116.24, 116.03, 111.25, 110.94, 109.75, 74.80, 56.24, 55.05, 47.92, 46.23, 20.71, 20.36, 20.28, 18.88, 18.08.
487	12316639			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_9$, 603.2157; found, 603.2150	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.06 - 6.92 (m, 3H), 6.92 - 6.74 (m, 4H), 5.84 - 5.61 (m, 3H), 4.56 (p, *J* = 7.3 Hz, 1H), 4.00 (d, *J* = 9.8 Hz, 1H), 3.91 (s, 3H), 3.86 (s, 6H), 2.06 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -137.20, -137.72.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
488	12317467		(Thin film) 3383, 2938, 2837, 1770, 1733, 1677, 1609, 1586, 1505, 1453	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_{10}$, 597.2443; found, 597.2438	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.44 (s, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.33 (d, *J* = 8.5 Hz, 1H), 7.10 (d, *J* = 8.4 Hz, 1H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.42 – 6.34 (m, 4H), 5.85 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.81 (d, *J* = 9.8 Hz, 1H), 4.59 – 4.49 (m, 1H), 3.90 (s, 3H), 3.82 (s, 3H), 3.75 (s, 3H), 3.74 (s, 3H), 3.73 (s, 3H), 2.38 (s, 3H), 1.21 (d, *J* = 6.2 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H).
489	12317471		(Thin film) 3382, 2937, 1771, 1733, 1677, 1572, 1505, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2541	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.44 (s, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.31 (d, *J* = 7.7 Hz, 1H), 7.10 (d, *J* = 8.1 Hz, 1H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.69 – 6.65 (m, 1H), 6.65 – 6.62 (m, 2H), 6.60 – 6.54 (m, 1H), 5.89 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.90 (d, *J* = 9.8 Hz, 1H), 4.58 – 4.48 (m, 1H), 3.90 (s, 3H), 3.82 (s, 3H), 3.73 (s, 3H), 2.38 (s, 3H), 2.27 (s, 3H), 2.25 (s, 3H), 1.21 (d, *J* = 6.2 Hz, 3H), 0.95 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
490	12317473		(Thin film) 3383, 2937, 2836, 1772, 1735, 1678, 1502, 1453	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2538	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.45 (s, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.22 (d, *J* = 2.1 Hz, 1H), 7.03 (d, *J* = 2.2 Hz, 1H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.93 (ddd, *J* = 8.3, 2.3, 0.8 Hz, 1H), 6.89 (ddd, *J* = 8.2, 2.2, 0.8 Hz, 1H), 6.73 (d, *J* = 8.3 Hz, 1H), 6.67 (d, *J* = 8.2 Hz, 1H), 5.85 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.95 (d, *J* = 10.0 Hz, 1H), 4.58 – 4.46 (m, 1H), 3.90 (s, 3H), 3.82 (s, 3H), 3.72 (s, 3H), 2.38 (s, 3H), 2.25 (s, 3H), 2.21 (s, 3H), 1.22 (d, *J* = 6.1 Hz, 3H), 0.95 (d, *J* = 7.1 Hz, 3H).
491	12317479		(Thin film) 3382, 2985, 2941, 2840, 1771, 1736, 1677, 1578, 1508, 1479	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2043; found, 573.2042	^{1}H NMR (500 MHz, $CDCl_3$) for both isomers of a 1:1 mixture of diastereomers d 8.40 (s, 1H), 8.38 (s, 1H), 8.32 (d, *J* = 5.0 Hz, 1H), 8.31 (d, *J* = 5.3 Hz, 1H), 7.21 – 7.13 (m, 2H), 7.03 – 6.83 (m, 12H), 5.76 – 5.63 (m, 2H), 5.04 (d, *J* = 11.9 Hz, 1H), 5.02 (d, *J* = 11.2 Hz, 1H), 4.63 – 4.47 (m, 2H), 3.93 (d, *J* = 2.0 Hz, 3H), 3.92 (s, 3H), 3.91 – 3.89 (m, 6H), 3.80 (d, *J* = 1.7 Hz, 3H), 3.76 (d, *J* = 1.6 Hz, 3H), 2.39 (s, 3H), 2.38 (s, 3H), 1.31 (d, *J* = 7.2 Hz, 3H), 1.29 – 1.22 (m, 6H), 1.03 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
492	123174883		(Thin film) 3383, 2941, 2839, 1770, 1736, 1677, 1592, 1495	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2043; found, 573.2045	^{1}H NMR (500 MHz, $CDCl_3$) for the major isomer of a 2:1 mixture of diastereomers d 8.44 (s, 1H), 8.32 (d, J = 5.5 Hz, 1H), 7.18 (dd, J = 9.7, 3.0 Hz, 1H), 6.99 (d, J = 5.5 Hz, 1H), 6.96 (dd, J = 9.5, 3.0 Hz, 1H), 6.87 – 6.79 (m, 2H), 6.76 (dd, J = 9.0, 4.6 Hz, 1H), 6.72 (d, J = 4.6 Hz, 1H), 5.87 (dq, J = 9.6, 6.2 Hz, 1H), 4.88 (d, J = 9.6 Hz, 1H), 4.60 – 4.53 (m, 1H), 3.90 (s, 3H), 3.83 (s, 3H), 3.74 (s, 3H), 2.38 (s, 3H), 1.23 (d, J = 6.2 Hz, 3H), 1.02 (d, J = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
493	123184637			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_{11}$, 627.2548; found, 627.2546	^{1}H NMR (500 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 8.26 (t, *J* = 5.1 Hz, 4H), 7.07 (ddd, *J* = 13.9, 7.9, 1.1 Hz, 2H), 7.00 – 6.89 (m, 6H), 6.85 (td, *J* = 8.8, 8.0, 1.3 Hz, 2H), 6.78 – 6.72 (m, 4H), 5.75 – 5.71 (m, 4H), 5.71 – 5.62 (m, 2H), 5.12 (dd, *J* = 13.7, 9.8 Hz, 2H), 4.63 – 4.47 (m, 2H), 3.91 (s, 3H), 3.90 (s, 3H), 3.89 (s, 3H), 3.86 (s, 3H), 3.84 (s, 3H), 3.83 (s, 3H), 3.81 (s, 3H), 3.80 (s, 3H), 3.74 (s, 3H), 3.71 (s, 3H), 2.06 (s, 6H), 1.32 (d, *J* = 7.1 Hz, 3H), 1.26 (d, *J* = 6.0 Hz, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 172.36, 171.98, 170.28, 162.82, 162.78, 160.26, 160.23, 152.82, 152.78, 152.71, 147.42, 147.31, 147.19, 147.11, 145.68, 143.95, 143.93, 142.70, 142.64, 135.14, 134.87, 134.78, 134.61, 123.66, 123.62, 121.05, 120.97, 120.46, 120.33, 110.74, 110.61, 110.55, 109.44, 99.98, 89.63, 89.59, 73.81, 73.75, 60.40, 60.36, 60.31, 60.25, 56.17, 56.16, 55.64, 55.59, 48.18, 48.12, 41.96, 41.83, 29.28, 20.88, 18.86, 18.71, 18.41, 17.91.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
494	126468			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{34}H_{43}N_2O_{11}$, 655.2861; found, 655.2858	^{1}H NMR (500 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 8.40 – 8.28 (m, 2H), 8.26 (dd, *J* = 5.3, 3.7 Hz, 2H), 7.07 (ddd, *J* = 13.1, 8.0, 1.2 Hz, 2H), 7.03 – 6.89 (m, 6H), 6.88 – 6.80 (m, 2H), 6.75 (td, *J* = 5.6, 2.8 Hz, 4H), 5.81 – 5.72 (m, 4H), 5.72 – 5.62 (m, 2H), 5.12 (dd, *J* = 13.4, 9.8 Hz, 2H), 4.54 (dp, *J* = 17.6, 7.2 Hz, 2H), 3.89 (s, 3H), 3.89 (s, 3H), 3.88 (s, 3H), 3.86 (s, 3H), 3.84 (s, 3H), 3.83 (s, 3H), 3.81 (s, 3H), 3.80 (s, 3H), 3.74 (s, 3H), 3.71 (s, 3H), 2.54 (pd, *J* = 7.0, 4.2 Hz, 2H), 1.32 (d, *J* = 7.1 Hz, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.14 (d, *J* = 3.1 Hz, 6H), 1.13 (d, *J* = 3.1 Hz, 6H), 1.00 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 176.26, 176.24, 172.37, 171.99, 162.79, 162.73, 160.25, 160.21, 152.82, 152.78, 152.70, 147.42, 147.32, 147.19, 147.11, 145.53, 144.22, 144.16, 142.27, 135.14, 134.88, 134.79, 134.62, 123.66, 123.62, 121.06, 120.97, 120.47, 120.33, 110.76, 110.74, 110.61, 110.55, 109.39, 99.98, 90.02, 89.95, 73.79, 73.73, 60.40, 60.36, 60.31, 60.26, 56.12, 56.10, 55.64, 55.59, 48.18, 48.12, 41.96, 41.82, 33.87, 33.85, 18.85, 18.68, 18.41, 17.91.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
495	10618471			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_{10}$, 597.2443; found, 597.2434	^{1}H NMR (500 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 8.45 (s, 2H), 8.32 (d, *J* = 3.9 Hz, 1H), 8.31 (d, *J* = 3.9 Hz, 1H), 7.07 (ddd, *J* = 12.2, 8.0, 1.3 Hz, 2H), 7.01 – 6.89 (m, 6H), 6.89 – 6.79 (m, 2H), 6.75 (td, *J* = 6.8, 1.5 Hz, 4H), 5.73 – 5.60 (m, 2H), 5.12 (d, *J* = 10.1 Hz, 1H), 5.10 (d, *J* = 9.5 Hz, 1H), 4.61 – 4.52 (m, 1H), 4.52 – 4.44 (m, 1H), 3.91 (s, 3H), 3.90 (s, 3H), 3.89 (s, 3H), 3.86 (s, 3H), 3.83 (s, 3H), 3.83 (s, 3H), 3.81 (s, 3H), 3.80 (s, 3H), 3.73 (s, 3H), 3.72 (s, 3H), 2.39 (s, 3H), 2.38 (s, 3H), 1.30 (d, *J* = 7.1 Hz, 3H), 1.27 – 1.22 (m, 6H), 0.98 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 172.26, 171.87, 168.91, 162.22, 162.18, 159.42, 159.39, 152.82, 152.77, 152.70, 147.40, 147.32, 147.18, 147.11, 146.63, 141.62, 137.45, 137.41, 135.11, 134.85, 134.76, 134.60, 123.66, 123.64, 121.06, 120.97, 120.48, 120.33, 110.74, 110.61, 110.55, 109.65, 73.83, 73.78, 60.40, 60.38, 60.31, 60.28, 56.28, 56.26, 55.65, 55.63, 55.58, 48.01, 47.91, 41.81, 20.76, 18.84, 18.68, 18.48, 18.07.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
496	12318473			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2538	^{1}H NMR (500 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 8.43 (s, 2H), 8.32 (d, *J* = 4.4 Hz, 1H), 8.31 (d, *J* = 4.4 Hz, 1H), 7.39 – 7.30 (m, 2H), 7.13 (t, *J* = 9.0 Hz, 2H), 7.05 – 6.86 (m, 10H), 5.74 – 5.58 (m, 2H), 5.09 (d, *J* = 9.7 Hz, 1H), 5.06 (d, *J* = 9.1 Hz, 1H), 4.53 (dq, *J* = 15.5, 7.5 Hz, 2H), 3.91 (s, 3H), 3.90 (s, 3H), 3.83 (s, 3H), 3.79 (s, 3H), 3.70 (s, 3H), 3.68 (s, 3H), 2.39 (s, 3H), 2.38 (s, 3H), 2.30 (s, 3H), 2.29 (s, 3H), 2.25 (s, 6H), 1.30 – 1.23 (m, 9H), 0.92 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 172.25, 171.70, 168.90, 162.23, 162.17, 159.44, 159.40, 156.93, 156.89, 156.82, 156.75, 146.64, 146.57, 141.65, 141.59, 137.42, 134.11, 133.96, 133.86, 133.76, 131.20, 131.14, 131.04, 130.95, 130.03, 129.76, 129.70, 126.87, 126.70, 126.65, 126.37, 123.81, 109.65, 74.38, 74.32, 60.31, 60.23, 60.20, 56.29, 56.27, 47.98, 47.84, 41.65, 20.75, 19.06, 18.90, 18.41, 18.00, 16.68, 16.47.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
497	1231847-8			HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2529	^{1}H NMR (400 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 8.50 – 8.23 (m, 4H), 7.13 – 6.92 (m, 8H), 6.86 (t, *J* = 7.1 Hz, 2H), 6.73 – 6.63 (m, 4H), 5.77 – 5.58 (m, 2H), 4.61 (t, *J* = 9.4 Hz, 2H), 4.49 (dp, *J* = 26.5, 7.1 Hz, 2H), 3.90 (s, 3H), 3.89 (s, 3H), 3.79 (s, 3H), 3.78 (s, 3H), 3.76 (s, 3H), 3.75 (s, 3H), 2.38 (d, *J* = 0.9 Hz, 6H), 2.28 (s, 3H), 2.26 (s, 3H), 2.20 (s, 3H), 2.18 (s, 3H), 1.27 (dt, *J* = 6.4, 3.2 Hz, 9H), 0.96 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) for 1:1 mixture of diastereomers δ 172.28, 171.77, 168.85, 162.24, 159.41, 157.72, 157.55, 146.61, 141.63, 140.75, 140.51, 140.12, 137.47, 126.12, 126.08, 125.91, 125.42, 120.51, 120.39, 119.92, 119.76, 109.64, 108.32, 74.77, 74.71, 56.26, 55.45, 53.40, 48.08, 47.90, 47.55, 20.72, 18.81, 18.67, 18.29, 17.98, 11.80, 11.73, 11.43.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
498	125182639		(Thin film) 3384, 2942, 1771, 1737, 1677, 1501, 1475, 1430, 1308, 1200, 1175, 1100, 1057, 950, 908, 731	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{29}H_{29}F_4N_2O_8$, 609.1855; found, 609.1851	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.35 (d, *J* = 5.5 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.07 (ddd, *J* = 8.2, 5.7, 2.2 Hz, 1H), 7.00 (d, *J* = 5.5 Hz, 1H), 6.86 – 6.72 (m, 3H), 5.70 – 5.62 (m, 1H), 4.85 (d, *J* = 9.4 Hz, 1H), 4.62 – 4.54 (m, 1H), 3.97 (d, *J* = 2.3 Hz, 3H), 3.91 (s, 3H), 3.83 (d, *J* = 2.0 Hz, 3H), 2.38 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 1.11 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.04, 168.90, 162.27, 159.48, 149.41, 147.34 – 146.78 (m), 146.60, 143.34, 141.37, 137.50, 129.96 – 129.37 (m), 123.61 – 122.42 (m), 110.81 (d, *J* = 13.5 Hz), 110.68 (d, *J* = 13.2 Hz), 109.78, 72.31, 61.44 – 60.78 (m), 56.31, 47.89, 42.40, 20.74, 18.77, 18.11.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
499	126186n1		(Thin film) 3381, 2938, 1771, 1734, 1677, 1504, 1451, 1310, 1198, 1175, 1147, 1043, 908, 806, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_6$, 533.2646; found, 533.2651	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.43 (s, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.11 – 6.83 (m, 7H), 5.66 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.57 – 4.48 (m, 1H), 4.45 (d, *J* = 10.0 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.35 (s, 3H), 2.29 (s, 3H), 2.27 (s, 3H), 2.25 (s, 3H), 1.28 (d, *J* = 6.2 Hz, 3H), 0.94 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.41, 168.91, 162.25, 159.41, 146.64, 141.58, 139.12, 138.59, 137.44, 135.40, 135.07, 133.59, 133.35, 130.56, 130.27, 128.60, 127.91, 127.20, 126.91, 109.68, 74.87, 56.27, 47.90, 47.34, 21.28, 21.22, 20.75, 19.79, 19.73, 18.86, 17.98.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
500	1261856[illegible]		(Thin film) 3384, 2938, 1771, 1735, 1677, 1505, 1451, 1309, 1198, 1174, 1100, 1043, 908, 804, 730	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{31}H_{37}N_2O_6$, 533.2646; found, 533.2642	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (s, 1H), 8.31 (d, *J* = 5.5 Hz, 1H), 7.18 (d, *J* = 7.9 Hz, 1H), 7.12 (d, *J* = 8.6 Hz, 1H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.96 – 6.85 (m, 4H), 5.66 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.57 – 4.48 (m, 1H), 4.43 (d, *J* = 10.0 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.34 (s, 3H), 2.30 (s, 3H), 2.25 (s, 3H), 2.21 (s, 3H), 1.28 (d, *J* = 6.1 Hz, 3H), 0.96 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.30, 168.92, 162.24, 159.41, 146.64, 141.59, 137.43, 136.50, 136.40, 136.19, 136.10, 135.84, 135.52, 131.49, 131.15, 127.76, 127.14, 126.81, 126.59, 109.67, 74.83, 56.27, 47.89, 46.82, 20.84, 20.81, 20.76, 20.13, 20.07, 18.92, 18.03.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
501	[illegible]		(Thin film) 3379, 2983, 1770, 1738, 1677, 1496, 1453, 1310, 1199, 1176, 1148, 1043, 909, 808, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_6$, 541.2145; found, 541.2146	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.43 (d, *J* = 7.9 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.13 – 6.98 (m, 4H), 6.91 (dd, *J* = 10.3, 2.8 Hz, 1H), 6.81 (dtd, *J* = 12.5, 8.2, 2.7 Hz, 2H), 5.57 (dq, *J* = 9.6, 6.1 Hz, 1H), 4.61 – 4.51 (m, 1H), 4.46 (d, *J* = 9.6 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.34 (s, 3H), 2.29 (s, 3H), 1.32 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.15, 168.90, 162.31, 161.35 (d, *J* = 243.7 Hz), 159.42, 146.68, 141.44, 140.63 (d, *J* = 6.5 Hz), 140.14 (d, *J* = 6.7 Hz), 137.47, 132.40 (d, *J* = 3.1 Hz), 132.06 (d, *J* = 2.0 Hz), 132.01 (d, *J* = 3.1 Hz), 131.69 (d, *J* = 7.8 Hz), 114.83 (d, *J* = 22.2 Hz), 114.37 (d, *J* = 22.3 Hz), 113.65 (d, *J* = 20.8 Hz), 113.37 (d, *J* = 20.6 Hz), 109.75, 74.02, 56.28, 47.77, 47.72, 20.75, 19.42, 19.35, 18.83, 18.00.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
502	[illegible]		(Thin film) 3378, 2940, 1770, 1738, 1677, 1498, 1207, 1176, 1151, 1037, 816, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2043; found, 573.2047	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 7.6 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.01 – 6.97 (m, 1H), 6.96 – 6.91 (m, 2H), 6.88 (d, *J* = 9.3 Hz, 1H), 6.86 – 6.81 (m, 1H), 6.70 (dt, *J* = 9.0, 3.5 Hz, 1H), 6.65 (dt, *J* = 9.0, 3.5 Hz, 1H), 5.83 (dq, *J* = 12.0, 6.1 Hz, 1H), 4.69 (d, *J* = 10.3 Hz, 1H), 4.57 (p, *J* = 7.3 Hz, 1H), 3.90 (s, 3H), 3.74 (s, 6H), 2.38 (s, 3H), 1.30 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.11, 168.90, 162.25, 159.42, 155.73 (d, *J* = 1.8 Hz), 155.57 (d, *J* = 2.0 Hz), 155.19 (d, *J* = 238.6 Hz), 154.96 (d, *J* = 238.7 Hz), 146.63, 141.51, 137.44, 127.90 (d, *J* = 15.8 Hz), 127.66 (d, *J* = 16.2 Hz), 116.23 (d, *J* = 24.8 Hz), 115.96 (d, *J* = 24.9 Hz), 115.16, 114.23, 113.21 – 112.82 (m), 109.69, 72.01, 56.28, 55.71, 47.85, 43.39, 20.75, 18.96, 18.05.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
503	[illegible]		(Thin film) 3379, 2938, 1770, 1736, 1676, 1623, 1585, 1506, 1444, 1310, 1195, 1175, 1154, 1031, 907, 832, 803, 729	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2043; found, 573.2044	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (s, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.29 (t, *J* = 8.7 Hz, 1H), 7.16 (t, *J* = 8.5 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.65 – 6.55 (m, 3H), 6.51 (dd, *J* = 12.0, 2.6 Hz, 1H), 5.78 (dq, *J* = 12.1, 6.2 Hz, 1H), 4.66 – 4.52 (m, 2H), 3.90 (s, 3H), 3.75 (s, 3H), 3.72 (s, 3H), 2.38 (s, 3H), 1.27 (d, *J* = 6.2 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.11, 168.91, 162.24, 161.24 (d, *J* = 245.7 Hz), 161.01 (d, *J* = 245.9 Hz), 159.72 (d, *J* = 11.2 Hz), 159.46 (d, *J* = 11.3 Hz), 159.44, 146.60, 141.51, 137.44, 129.90 (d, *J* = 5.4 Hz), 129.34 (d, *J* = 5.6 Hz), 119.60 (d, *J* = 14.6 Hz), 119.45 (d, *J* = 15.0 Hz), 110.13 (d, *J* = 3.0 Hz), 109.85 – 109.61 (m), 101.99 – 101.44 (m), 72.26, 56.28, 55.50, 55.46, 47.88, 41.64, 20.75, 18.93, 18.13.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
504	12618871		(Thin film) 3381, 2942, 1772, 1728, 1679, 1508, 1456, 1417, 1327, 1242, 1172, 1121, 1033, 904, 739	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{31}F_6N_2O_8$, 673.1979; found, 673.1985	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (s, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.54 (d, *J* = 8.0 Hz, 1H), 7.30 (d, *J* = 7.8 Hz, 1H), 7.12 (d, *J* = 8.0 Hz, 2H), 7.04 – 6.97 (m, 3H), 6.01 – 5.91 (m, 1H), 4.99 (d, *J* = 9.3 Hz, 1H), 4.60 – 4.46 (m, 1H), 3.90 (s, 3H), 3.89 (s, 3H), 3.81 (s, 3H), 2.38 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.98 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.17, 162.27, 159.47, 157.54, 157.39, 146.61, 141.44, 137.49, 132.44, 130.44 – 129.46 (m), 117.00, 109.74, 107.51 (d, *J* = 25.6 Hz), 99.99, 71.95, 56.28, 55.73, 55.69, 47.82, 43.70, 20.73, 18.89, 17.97.
505	12618883		(Thin film) 3375, 2939, 1770, 1677, 1592, 1509, 1195, 1136, 1059, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2043; found, 573.2034	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 7.9 Hz, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.66 – 6.53 (m, 4H), 6.45 (ddt, *J* = 14.8, 10.5, 2.3 Hz, 2H), 5.67 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.62 – 4.49 (m, 1H), 3.94 (d, *J* = 9.9 Hz, 1H), 3.90 (s, 3H), 3.76 (s, 3H), 3.75 (s, 3H), 2.38 (s, 3H), 1.25 (d, *J* = 7.6 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -110.67, -111.17.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
506	126198886		(Thin film) 3375, 2938, 1770, 1677, 1593, 1203, 1152, 1064, 731	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{31}H_{37}N_2O_{10}$, 597.2443; found, 597.2442	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 7.7 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.45 (dd, *J* = 6.5, 2.3 Hz, 4H), 6.28 (dt, *J* = 17.4, 2.3 Hz, 2H), 5.74 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.59 – 4.48 (m, 1H), 3.93 – 3.86 (m, 4H), 3.76 (s, 6H), 3.74 (s, 6H), 2.38 (s, 3H), 1.28 – 1.22 (m, 3H), 0.97 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.26, 168.86, 162.29, 160.95, 160.78, 159.43, 146.64, 143.47, 143.25, 141.64, 137.47, 109.69, 106.48, 106.26, 98.54, 98.44, 72.91, 58.21, 56.26, 55.30, 55.28, 47.92, 20.73, 19.23, 18.01.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
507	128188887		(Thin film) 3384, 2939, 1771, 1677, 1593, 1508, 1172, 1152, 1066, 732	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2540	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 7.9 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.69 (d, *J* = 1.5 Hz, 2H), 6.64 (dt, *J* = 4.2, 1.9 Hz, 2H), 6.54 (t, *J* = 1.9 Hz, 1H), 6.49 (t, *J* = 1.9 Hz, 1H), 5.73 (dq, *J* = 10.3, 6.1 Hz, 1H), 4.59 – 4.47 (m, 1H), 3.89 (s, 4H), 3.75 (s, 3H), 3.73 (s, 3H), 2.38 (s, 3H), 2.28 (s, 3H), 2.25 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.93 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.30, 168.86, 162.27, 159.77, 159.64, 159.43, 146.64, 142.75, 142.51, 141.67, 139.73, 139.31, 137.46, 121.35, 121.29, 112.68, 111.36, 110.95, 109.68, 73.23, 57.88, 56.26, 55.15, 55.13, 47.91, 29.30, 21.67, 21.60, 20.73, 19.27, 17.96.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
508	[illegible]		(Thin film) 3376, 2939, 1771, 1678, 1508, 1201, 1040, 734	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2538	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 7.9 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.06 – 6.94 (m, 3H), 6.80 (ddd, *J* = 7.7, 6.1, 1.7 Hz, 2H), 6.73 (dd, *J* = 14.2, 1.6 Hz, 2H), 5.79 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.60 – 4.47 (m, 1H), 3.96 (d, *J* = 10.1 Hz, 1H), 3.89 (s, 3H), 3.79 (s, 3H), 3.79 (s, 3H), 2.38 (s, 3H), 2.14 (s, 3H), 2.11 (s, 3H), 1.24 (d, *J* = 6.4 Hz, 3H), 0.93 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.31, 168.86, 162.28, 159.44, 157.84, 157.65, 146.62, 141.65, 140.39, 140.28, 137.48, 130.75, 130.48, 125.19, 124.79, 119.76, 119.68, 109.94, 109.85, 109.69, 73.32, 57.89, 56.26, 55.29, 47.93, 29.30, 20.73, 19.30, 17.97, 15.80, 15.75.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
509	1231888893		(Thin film) 3373, 2939, 1770, 1676, 1513, 1276, 1201, 1026, 731	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_8$, 573.2043; found, 573.2033	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 7.9 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.04 – 6.91 (m, 5H), 6.86 (dt, *J* = 11.1, 8.7 Hz, 2H), 5.63 (dq, *J* = 9.4, 6.1 Hz, 1H), 4.64 – 4.51 (m, 1H), 3.92 (d, *J* = 9.5 Hz, 1H), 3.90 (s, 3H), 3.84 (s, 3H), 3.82 (s, 3H), 2.38 (s, 3H), 1.22 (d, *J* = 6.2 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -134.20, -134.64.
510	1231888935		(Thin film) 3386, 2939, 1771, 1677, 1504, 1201, 1176, 732	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2526	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.43 (s, 1H), 8.31 (d, *J* = 5.5 Hz, 1H), 7.12 – 6.94 (m, 5H), 6.70 (dd, *J* = 14.1, 8.4 Hz, 2H), 5.69 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.60 – 4.49 (m, 1H), 3.89 (s, 3H), 3.87 (d, *J* = 10.6 Hz, 1H), 3.77 (s, 3H), 3.74 (s, 3H), 2.38 (s, 3H), 2.16 (s, 3H), 2.14 (s, 3H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.95 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.30, 168.86, 162.26, 159.43, 156.52, 156.35, 146.63, 141.69, 137.46, 133.70, 133.57, 130.50, 130.37, 126.79, 126.37, 126.10, 125.87, 110.05, 109.92, 109.67, 73.70, 56.26, 56.23, 55.31, 55.29, 47.94, 20.73, 19.29, 18.08, 16.32, 16.25.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
511	128188897		(Thin film) 3387, 2940, 1771, 1678, 1499, 1223, 1046, 808, 732	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{37}N_2O_{10}$, 597.2443; found, 597.2410	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.50 – 8.35 (m, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.07 (d, *J* = 3.0 Hz, 1H), 6.97 (d, *J* = 5.5 Hz, 1H), 6.87 (d, *J* = 3.0 Hz, 1H), 6.80 – 6.60 (m, 4H), 5.91 (dq, *J* = 9.9, 6.1 Hz, 1H), 4.93 (d, *J* = 10.0 Hz, 1H), 4.62 – 4.45 (m, 1H), 3.89 (s, 3H), 3.81 (s, 3H), 3.74 (s, 3H), 3.71 (s, 3H), 3.70 (s, 3H), 2.38 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.97 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.29, 168.87, 162.24, 159.40, 153.47, 153.45, 151.89, 151.77, 146.63, 141.73, 137.43, 130.69, 116.44, 115.43, 112.14, 112.11, 111.84, 111.55, 109.63, 73.04, 56.33, 56.29, 56.25, 55.68, 55.59, 47.96, 43.90, 29.30, 20.73, 18.91, 18.13.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
512	1231888889		(Thin film) 3381, 2939, 1771, 1677, 1502, 1200, 1175, 1043, 731	HRMS-ESI (*m/z*) ($[M+H]^{+}$) calcd for $C_{31}H_{37}N_2O_8$, 565.2544; found, 565.2543	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.43 (d, *J* = 8.0 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.05 (d, *J* = 8.3 Hz, 1H), 7.01 – 6.94 (m, 2H), 6.90 (d, *J* = 2.7 Hz, 1H), 6.82 (d, *J* = 2.7 Hz, 1H), 6.63 (ddd, *J* = 18.7, 8.4, 2.7 Hz, 2H), 5.65 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.59 – 4.49 (m, 1H), 4.45 (d, *J* = 10.0 Hz, 1H), 3.89 (s, 3H), 3.73 (s, 3H), 3.73 (s, 3H), 2.38 (s, 3H), 2.32 (s, 3H), 2.27 (s, 3H), 1.31 (d, *J* = 6.1 Hz, 3H), 0.97 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.26, 168.85, 162.28, 159.43, 157.92, 157.89, 146.64, 141.63, 140.31, 139.86, 137.47, 131.43, 131.10, 128.88, 128.61, 114.65, 113.69, 111.27, 111.11, 109.70, 74.59, 56.26, 55.19, 47.90, 47.86, 29.30, 20.73, 19.29, 19.25, 18.90, 17.99.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
513	123189001		(Thin film) 3381, 2940, 1740, 1675, 1592, 1505, 1200, 1134, 1045, 829, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_9$, 603.2149; found, 603.2137	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 6.94 (d, *J* = 5.4 Hz, 1H), 6.60 (dddd, *J* = 13.2, 10.8, 3.9, 1.8 Hz, 4H), 6.45 (ddt, *J* = 13.9, 10.5, 2.3 Hz, 2H), 5.76 – 5.63 (m, 3H), 4.57 (p, *J* = 7.3 Hz, 1H), 3.95 (d, *J* = 10.0 Hz, 1H), 3.90 (s, 3H), 3.77 (s, 3H), 3.75 (s, 3H), 2.06 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -110.67, -111.20.
514	123189003		(Thin film) 3382, 2937, 1737, 1675, 1593, 1457, 1202, 1150, 1062, 829, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_{11}$, 627.2548; found, 627.2555	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 6.93 (d, *J* = 5.4 Hz, 1H), 6.46 (dd, *J* = 7.4, 2.2 Hz, 4H), 6.28 (dt, *J* = 16.6, 2.2 Hz, 2H), 5.81 – 5.68 (m, 3H), 4.55 (p, *J* = 7.2 Hz, 1H), 3.96 – 3.86 (m, 4H), 3.76 (s, 6H), 3.74 (s, 6H), 2.06 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.37, 170.22, 162.89, 160.96, 160.79, 160.25, 145.70, 143.93, 143.51, 143.26, 142.65, 109.51, 106.49, 106.24, 98.54, 98.43, 89.57, 72.87, 58.24, 56.17, 55.30, 55.28, 48.14, 20.85, 19.25, 17.84.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
515	12618915		(Thin film) 3382, 2937, 1738, 1676, 1594, 1504, 1293, 1202, 1152	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_9$, 595.2650; found, 595.2647	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 6.93 (d, *J* = 5.4 Hz, 1H), 6.70 (s, 2H), 6.65 (dt, *J* = 5.7, 1.9 Hz, 2H), 6.55 (t, *J* = 1.7 Hz, 1H), 6.50 (t, *J* = 1.7 Hz, 1H), 5.80 – 5.66 (m, 3H), 4.54 (p, *J* = 7.2 Hz, 1H), 3.93 – 3.87 (m, 4H), 3.75 (d, *J* = 7.3 Hz, 6H), 2.29 (s, 3H), 2.25 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.95 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.41, 170.22, 162.88, 160.25, 159.77, 159.65, 145.70, 143.93, 142.79, 142.70, 142.52, 139.73, 139.31, 121.35, 121.30, 112.69, 111.36, 110.92, 109.50, 89.57, 73.19, 57.91, 56.16, 55.15, 55.14, 48.13, 29.30, 21.67, 21.60, 20.85, 19.29, 17.79.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
516	128189[illegible]7		(Thin film) 3382, 2936, 1737, 1676, 1505, 1202, 1040, 969, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_9$, 595.2650; found, 595.2639	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.21 (d, *J* = 7.8 Hz, 1H), 7.05 – 6.96 (m, 2H), 6.93 (d, *J* = 5.4 Hz, 1H), 6.81 (td, *J* = 7.4, 1.6 Hz, 2H), 6.76 (d, *J* = 1.6 Hz, 1H), 6.72 (d, *J* = 1.6 Hz, 1H), 5.79 (dq, *J* = 10.1, 6.2 Hz, 1H), 5.72 (d, *J* = 1.4 Hz, 2H), 4.55 (p, *J* = 7.2 Hz, 1H), 3.97 (d, *J* = 10.2 Hz, 1H), 3.90 (s, 3H), 3.80 (s, 3H), 3.79 (s, 3H), 2.14 (s, 3H), 2.11 (s, 3H), 2.06 (s, 3H), 1.26 (d, *J* = 6.2 Hz, 3H), 0.94 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.43, 170.21, 162.89, 160.26, 157.85, 157.65, 145.68, 143.94, 142.67, 140.44, 140.28, 130.75, 130.48, 125.19, 124.78, 119.75, 119.67, 109.94, 109.86, 109.52, 89.56, 73.28, 57.91, 56.17, 55.29, 55.28, 48.16, 20.85, 19.32, 17.82, 15.80, 15.75.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
517	1251899		(Thin film) 3382, 2984, 1739, 1675, 1512, 1275, 1202, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{30}H_{33}F_2N_2O_9$, 603.2149; found, 603.2137	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.9 Hz, 1H), 7.04 – 6.92 (m, 5H), 6.87 (q, *J* = 8.7 Hz, 2H), 5.72 (s, 2H), 5.64 (dq, *J* = 9.5, 6.2 Hz, 1H), 4.65 – 4.48 (m, 1H), 3.93 (d, *J* = 9.7 Hz, 1H), 3.91 (s, 3H), 3.84 (s, 3H), 3.83 (s, 3H), 2.06 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.06 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -134.20, -134.65.
518	1251911		(Thin film) 3382, 2941, 1737, 1676, 1503, 1248, 1203, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_9$, 595.2650; found, 595.2645	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (s, 1H), 8.23 (d, *J* = 7.9 Hz, 1H), 7.11 – 6.99 (m, 5H), 6.93 (d, *J* = 5.3 Hz, 1H), 6.71 (dd, *J* = 12.0, 8.4 Hz, 2H), 5.74 – 5.65 (m, 3H), 4.55 (p, *J* = 7.2 Hz, 1H), 3.90 (s, 3H), 3.77 (s, 3H), 3.75 (s, 3H), 2.16 (s, 3H), 2.14 (s, 3H), 2.06 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.43, 170.22, 162.87, 160.26, 156.53, 156.36, 145.68, 143.94, 142.72, 133.75, 133.58, 130.48, 130.36, 126.81, 126.38, 126.10, 125.87, 110.06, 109.93, 109.49, 89.58, 73.66, 56.27, 56.16, 55.33, 55.30, 48.16, 20.85, 19.32, 17.91, 16.33, 16.25.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
519	1231893-13		(Thin film) 3381, 2939, 1737, 1676, 1498, 1233, 1043, 729	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_{11}$, 627.2548; found, 627.2541	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.25 (dd, *J* = 6.5, 3.4 Hz, 2H), 7.07 (d, *J* = 3.0 Hz, 1H), 6.92 (d, *J* = 5.4 Hz, 1H), 6.87 (d, *J* = 3.1 Hz, 1H), 6.77 (d, *J* = 8.8 Hz, 1H), 6.71 (d, *J* = 8.8 Hz, 1H), 6.66 (ddd, *J* = 11.1, 8.9, 3.0 Hz, 2H), 5.92 (dq, *J* = 9.9, 6.1 Hz, 1H), 5.72 (d, *J* = 1.7 Hz, 2H), 4.94 (d, *J* = 10.0 Hz, 1H), 4.56 (p, *J* = 7.2 Hz, 1H), 3.89 (s, 3H), 3.81 (s, 3H), 3.74 (s, 3H), 3.72 (s, 3H), 3.71 (s, 3H), 2.06 (s, 3H), 1.25 (d, *J* = 6.3 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.39, 170.22, 162.84, 160.23, 153.47, 153.45, 151.89, 151.78, 145.68, 143.88, 142.78, 130.73, 130.69, 116.45, 115.38, 112.14, 112.13, 111.83, 111.55, 109.45, 89.59, 73.02, 56.34, 56.29, 56.15, 55.67, 55.59, 48.17, 43.90, 20.86, 18.91, 17.97.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
520	128189116		(Thin film) 3382, 2937, 1739, 1677, 1500, 1455, 1202, 1042, 730	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{32}H_{39}N_2O_9$, 595.2650; found, 595.2652	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.26 (d, *J* = 5.4 Hz, 1H), 8.23 (d, *J* = 7.8 Hz, 1H), 7.05 (d, *J* = 8.5 Hz, 1H), 6.98 (d, *J* = 8.4 Hz, 1H), 6.93 (d, *J* = 5.4 Hz, 1H), 6.90 (d, *J* = 2.7 Hz, 1H), 6.82 (d, *J* = 2.7 Hz, 1H), 6.63 (ddd, *J* = 18.1, 8.3, 2.7 Hz, 2H), 5.72 (d, *J* = 1.6 Hz, 2H), 5.66 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.56 (p, *J* = 7.3 Hz, 1H), 4.46 (d, *J* = 10.1 Hz, 1H), 3.90 (s, 3H), 3.73 (s, 6H), 2.33 (s, 3H), 2.28 (s, 3H), 2.06 (s, 3H), 1.32 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 172.37, 170.22, 162.89, 160.25, 157.92, 157.89, 145.69, 143.92, 142.66, 140.37, 139.85, 131.44, 131.11, 128.89, 128.62, 114.67, 113.64, 111.28, 111.11, 109.52, 89.57, 74.55, 56.17, 55.19, 48.13, 47.87, 29.30, 20.86, 19.30, 19.26, 18.88, 17.81.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
521	123189441	(Thin film) 3380, 2933, 1769, 1737, 1677, 1496, 1195, 1174, 1095	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{31}H_{35}F_2N_2O_8$, 602.2389; found, 602.2395	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39 (d, *J* = 7.1 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.44 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.23 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.11 (dd, *J* = 9.6, 2.8 Hz, 1H), 7.07 (dd, *J* = 9.7, 2.8 Hz, 1H), 7.00 (d, *J* = 5.5 Hz, 1H), 6.96 – 6.87 (m, 2H), 5.60 (dq, *J* = 8.5, 6.2 Hz, 1H), 4.69 (d, *J* = 8.8 Hz, 1H), 4.62 (d, *J* = 12.4 Hz, 1H), 4.60 – 4.53 (m, 1H), 4.50 (d, *J* = 12.6 Hz, 1H), 4.44 (d, *J* = 12.5 Hz, 1H), 4.40 (d, *J* = 12.5 Hz, 1H), 3.90 (s, 3H), 3.43 (s, 3H), 3.38 (s, 3H), 2.39 (s, 3H), 1.28 (d, *J* = 6.2 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.57, -115.90.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
522	125189943		(Thin film) 3385, 2976, 1770, 1738, 1678, 1506, 1200, 1175, 1155, 1096	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{33}H_{39}F_2N_2O_8$, 629.2669; found, 629.2666	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 6.4 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.45 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.21 (dd, *J* = 8.7, 5.6 Hz, 1H), 7.17 – 7.05 (m, 2H), 7.00 (d, *J* = 5.5 Hz, 1H), 6.97 – 6.82 (m, 2H), 5.62 (dq, *J* = 8.2, 6.2 Hz, 1H), 4.70 (d, *J* = 8.7 Hz, 1H), 4.67 (d, *J* = 12.7 Hz, 1H), 4.62 – 4.50 (m, 2H), 4.48 (d, *J* = 12.5 Hz, 1H), 4.43 (d, *J* = 12.7 Hz, 1H), 3.90 (s, 3H), 3.62 – 3.45 (m, 4H), 2.39 (s, 3H), 1.30 – 1.25 (m, 6H), 1.23 (t, *J* = 7.0 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.69, -115.98.
523	125216669			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_7$, 525.2037; found, 525.2025	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 6.8 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.36 - 7.28 (m, 2H), 7.26 - 7.18 (m, 2H), 7.18 - 7.10 (m, 2H), 6.97 (d, *J* = 5.5 Hz, 1H), 6.67 - 6.46 (m, 2H), 5.83 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.62 - 4.46 (m, 2H), 3.87 (s, 3H), 3.82 (s, 3H), 2.38 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.91 (d, *J* = 7.1 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.24.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
524	12321611			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_6$, 509.2088; found, 509.2083	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 7.9 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.35 - 7.17 (m, 5H), 7.17 - 7.08 (m, 1H), 6.97 (d, *J* = 5.5 Hz, 1H), 6.93 - 6.79 (m, 2H), 5.77 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.60 - 4.47 (m, 1H), 4.28 (d, *J* = 10.2 Hz, 1H), 3.87 (s, 3H), 2.38 (s, 6H), 1.26 (d, *J* = 6.1 Hz, 3H), 0.93 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.66.
525	12321613			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_7$, 525.2037; found, 525.2035	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 8.1 Hz, 1H), 8.30 (d, *J* = 5.6 Hz, 1H), 7.35 - 7.21 (m, 5H), 7.17 (ddt, *J* = 6.5, 5.4, 1.8 Hz, 1H), 6.98 (d, *J* = 5.4 Hz, 1H), 6.58 (td, *J* = 8.3, 2.6 Hz, 1H), 6.51 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.81 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.63 - 4.43 (m, 2H), 3.87 (s, 3H), 3.75 (s, 3H), 2.38 (s, 3H), 2.15 (s, 3H), , 0.99 (d, *J* = 7.1 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.59.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
526	1263161[illegible]			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_6$, 509.2088; found, 509.2079	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.47 - 8.36 (m, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.35 (dd, *J* = 8.7, 5.7 Hz, 1H), 7.30 - 7.15 (m, 5H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.85 (td, *J* = 8.4, 2.8 Hz, 1H), 6.79 (dd, *J* = 9.8, 2.8 Hz, 1H), 5.73 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.60 - 4.47 (m, 1H), 4.26 (d, *J* = 10.0 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 2.30 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.96 (d, *J* = 7.1 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -117.14.
527	1263218[illegible]			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{32}FN_2O_7$, 539.2193; found, 539.2180	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 5.0 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.23 - 7.19 (m, 2H), 7.19 - 7.10 (m, 1H), 7.03 (d, *J* = 7.9 Hz, 2H), 6.97 (d, *J* = 5.5 Hz, 1H), 6.63 - 6.50 (m, 2H), 5.80 (dq, *J* = 9.6, 6.1 Hz, 1H), 4.61 - 4.46 (m, 2H), 3.88 (s, 3H), 3.81 (s, 3H), 2.38 (s, 3H), 2.25 (s, 3H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.95 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.44.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
528	1263218831			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{32}FN_2O_6$, 523.2244; found, 523.2235	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 8.6 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.28 (dd, *J* = 8.8, 5.9 Hz, 1H), 7.18 - 7.10 (m, 2H), 7.02 (d, *J* = 7.9 Hz, 2H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.92 - 6.78 (m, 2H), 5.74 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.62 - 4.45 (m, 1H), 4.24 (d, *J* = 10.1 Hz, 1H), 3.88 (s, 3H), 2.38 (s, 3H), 2.37 (s, 3H), 2.24 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.88.
529	1263218863			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{32}FN_2O_7$, 539.2193; found, 539.2182	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 7.9 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.37 - 7.23 (m, 1H), 7.20 - 7.12 (m, 2H), 7.06 (d, *J* = 7.8 Hz, 2H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.57 (td, *J* = 8.3, 2.5 Hz, 1H), 6.50 (dd, *J* = 11.0, 2.6 Hz, 1H), 5.78 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.69 - 4.41 (m, 2H), 3.89 (s, 3H), 3.76 (s, 3H), 2.38 (s, 3H), 2.27 (s, 3H), 1.21 (d, *J* = 6.1 Hz, 3H), 0.98 (d, *J* = 7.1 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.82.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
530	1232188-86			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{32}FN_2O_6$, 523.2244; found, 523.2229	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (s, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.33 (dd, *J* = 8.7, 5.8 Hz, 1H), 7.20 - 7.04 (m, 4H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.84 (td, *J* = 8.5, 2.9 Hz, 1H), 6.77 (dd, *J* = 9.6, 2.4 Hz, 1H), 5.71 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.61 - 4.45 (m, 1H), 4.21 (d, *J* = 10.1 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 2.30 (s, 3H), 2.28 (s, 3H), 1.23 (d, *J* = 6.0 Hz, 3H), 0.96 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -117.33.
531	1232188-87			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_7$, 543.1943; found, 543.1936	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 6.0 Hz, 1H), 8.30 (d, *J* = 5.5 Hz, 1H), 7.35 - 7.22 (m, 2H), 7.13 (dd, *J* = 8.3, 6.4 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.96 - 6.84 (m, 2H), 6.65 - 6.51 (m, 2H), 5.79 (dq, *J* = 9.7, 6.2 Hz, 1H), 4.64 - 4.47 (m, 2H), 3.88 (s, 3H), 3.81 (s, 3H), 2.38 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.92, -116.48.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
532	12324155			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_6$, 527.1993; found, 527.1984	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39 (d, *J* = 8.2 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.29 - 7.19 (m, 3H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.94 - 6.81 (m, 4H), 5.71 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.60 - 4.49 (m, 1H), 4.26 (d, *J* = 10.0 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 2.35 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 1.02 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.02, -116.38.
533	12324167			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_7$, 543.1943; found, 543.1928	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 5.8 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.33 - 7.18 (m, 3H), 7.02 - 6.89 (m, 3H), 6.58 (td, *J* = 8.4, 2.5 Hz, 1H), 6.52 (dd, *J* = 10.9, 2.6 Hz, 1H), 5.76 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.60 - 4.46 (m, 2H), 3.88 (s, 3H), 3.75 (s, 3H), 2.38 (s, 3H), 1.21 (d, *J* = 6.2 Hz, 3H), 1.01 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.26, -116.11.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
534	123241169			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_6$, 527.1993; found, 527.1985	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 8.1 Hz, 1H), 8.30 (d, *J* = 5.4 Hz, 1H), 7.33 (dd, *J* = 8.6, 5.7 Hz, 1H), 7.23 - 7.13 (m, 2H), 7.04 - 6.92 (m, 3H), 6.86 (td, *J* = 8.5, 2.8 Hz, 1H), 6.80 (dd, *J* = 9.7, 2.8 Hz, 1H), 5.69 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.63 - 4.45 (m, 1H), 4.24 (d, *J* = 9.8 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 2.28 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.54, -116.80.
535	123243036		(Thin film) 3385, 2982, 1771, 1737, 1679, 1605, 1508	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{33}N_2O_6$, 505.233; found, 505.2333	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.49 – 8.39 (m, 1H), 8.30 (d, *J* = 5.5 Hz, 1H), 7.19 – 7.05 (m, 6H), 7.01 – 6.92 (m, 3H), 5.78 (dq, *J* = 10.2, 6.1 Hz, 1H), 4.59 – 4.46 (m, 1H), 3.96 (d, *J* = 10.2 Hz, 1H), 3.86 (s, 3H), 2.37 (s, 3H), 2.30 (s, 3H), 2.27 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
536	12626643		(Thin film) 3377, 2985, 1771, 1736, 1677, 1502, 1195	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_7$, 557.2094; found, 557.2082	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 5.6 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.23 (dd, *J* = 8.5, 6.6 Hz, 1H), 7.16 (dd, *J* = 8.6, 5.9 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.81 (qd, *J* = 9.1, 8.3, 2.8 Hz, 2H), 6.57 (td, *J* = 8.3, 2.5 Hz, 1H), 6.51 (dd, *J* = 10.8, 2.5 Hz, 1H), 5.68 (dq, *J* = 10.0, 6.1 Hz, 1H), 4.74 (d, *J* = 10.0 Hz, 1H), 4.62 – 4.49 (m, 1H), 3.90 (s, 3H), 3.76 (s, 3H), 2.42 (s, 3H), 2.38 (s, 3H), 1.21 (d, *J* = 5.9 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.52, -117.02.
537	12626645		(Thin film) 3376, 2940, 1770, 1737, 1678, 1601, 1502, 1196	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{28}F_3N_2O_7$, 561.1843; found, 561.1836	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (d, *J* = 6.1 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.31 (dd, *J* = 8.4, 6.7 Hz, 1H), 7.23 – 7.14 (m, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.84 – 6.68 (m, 2H), 6.58 (td, *J* = 8.3, 2.5 Hz, 1H), 6.52 (dd, *J* = 10.8, 2.5 Hz, 1H), 5.86 – 5.73 (m, 1H), 4.78 (d, *J* = 9.9 Hz, 1H), 4.65 – 4.43 (m, 1H), 3.90 (s, 3H), 3.75 (s, 3H), 2.38 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
538	123256-47		(Thin film) 3378, 2986, 1770, 1736, 1677, 1501, 1196	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_7$, 557.2094; found, 557.2091	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.44 – 8.37 (m, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.33 (dd, *J* = 8.5, 5.8 Hz, 1H), 7.04 (dd, *J* = 8.4, 6.8 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.88 – 6.74 (m, 2H), 6.64 – 6.53 (m, 2H), 5.67 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.74 (d, *J* = 9.8 Hz, 1H), 4.62 – 4.45 (m, 1H), 3.90 (s, 3H), 3.84 (s, 3H), 2.38 (s, 3H), 2.27 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.98 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -112.97, -117.43.
539	123256-49		(Thin film) 3377, 2983, 1771, 1738, 1677, 1502, 1201	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{28}F_3N_2O_6$, 545.1894; found, 545.1896	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.43 – 8.35 (m, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.33 (dd, *J* = 8.6, 5.7 Hz, 1H), 7.19 – 7.07 (m, 1H), 7.00 (d, *J* = 5.5 Hz, 1H), 6.90 – 6.74 (m, 4H), 5.68 (dq, *J* = 12.0, 6.1 Hz, 1H), 4.62 (d, *J* = 9.9 Hz, 1H), 4.61 – 4.49 (m, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.28 (s, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H).

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
540	12326337		(Thin film) 3388, 2985, 1771, 1737, 1679, 1572, 1508, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_6$, 509.2082; found, 509.2078	^{1}H NMR (300 MHz, $CDCl_3$) δ 8.43 (d, *J* = 8.0 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.37 – 7.21 (m, 5H), 7.24 – 7.14 (m, 1H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.89 – 6.84 (m, 1H), 6.79 – 6.72 (m, 1H), 5.90 – 5.72 (m, 1H), 4.56 (dq, *J* = 8.1, 7.1 Hz, 1H), 4.41 (d, *J* = 10.0 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 2.24 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H).
541	12326383		(Thin film) 3378, 2984, 1771, 1737, 1679, 1509	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{29}F_2N_2O_6$, 527.1988; found, 527.1975	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 8.2 Hz, 1H), 8.31 (dd, *J* = 5.5, 1.2 Hz, 1H), 7.29 – 7.17 (m, 3H), 7.07 – 6.89 (m, 3H), 6.87 (dd, *J* = 8.0, 1.7 Hz, 1H), 6.80 – 6.72 (m, 1H), 5.75 (dq, *J* = 9.7, 6.1 Hz, 1H), 4.62 – 4.50 (m, 1H), 4.39 (d, *J* = 9.8 Hz, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 2.25 (s, 3H), 1.26 – 1.21 (m, 3H), 1.01 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -115.67, -118.89.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
542	12326386		(Thin film) 3390, 2984, 1772, 1737, 1678, 1508, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{32}FN_2O_6$, 523.2239; found, 523.2241	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.48 – 8.36 (m, 1H), 8.29 (d, *J* = 5.6 Hz, 1H), 7.26 – 7.21 (m, 1H), 7.20 – 7.16 (m, 2H), 7.07 (d, *J* = 7.9 Hz, 2H), 6.96 (d, *J* = 5.5 Hz, 1H), 6.84 (dd, *J* = 8.1, 1.9 Hz, 1H), 6.74 (dd, *J* = 11.3, 2.2 Hz, 1H), 5.83 – 5.73 (m, 1H), 4.63 – 4.50 (m, 1H), 4.37 (d, *J* = 10.1 Hz, 1H), 3.86 (s, 3H), 2.37 (s, 3H), 2.27 (s, 3H), 2.22 (s, 3H), 1.24 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -119.02.
543	12326387		(Thin film) 3384, 2983, 1772, 1737, 1679, 1591, 1507, 1452	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_6$, 541.2145; found, 541.2138	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 7.9 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.24 (dd, *J* = 9.6, 5.7 Hz, 1H), 7.17 (t, *J* = 7.9 Hz, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.88 – 6.82 (m, 3H), 6.75 (dd, *J* = 11.3, 2.2 Hz, 1H), 5.72 (dq, *J* = 9.8, 6.1 Hz, 1H), 4.63 (d, *J* = 10.0 Hz, 1H), 4.62 – 4.51 (m, 1H), 3.89 (s, 3H), 2.39 (s, 3H), 2.38 (s, 3H), 2.24 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.05 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -116.51, -118.10.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
544	1263389		(Thin film) 3381, 2984, 1771, 1739, 1678, 1504, 1453, 1432	HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{28}F_3N_2O_6$; 545.1894; found, 545.1885	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.45 – 8.39 (m, 1H), 8.31 (d, *J* = 5.5 Hz, 1H), 7.32 – 7.20 (m, 2H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.88 – 6.84 (m, 1H), 6.84 – 6.73 (m, 3H), 5.85 – 5.74 (m, 1H), 4.70 (d, *J* = 9.9 Hz, 1H), 4.63 – 4.52 (m, 1H), 3.89 (s, 3H), 2.38 (s, 3H), 2.25 (s, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 1.04 (d, *J* = 7.2 Hz, 3H).
545	1263976		(Thin film) 3378, 2982, 1770, 1734, 1675, 1508, 1451, 1309, 1200, 1174, 1046, 907, 802, 730, 699	ESIMS *m/z* 491.2 ($[M+H]^+$)	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.41 (s, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 7.31 – 7.27 (m, 2H), 7.22 (t, *J* = 7.7 Hz, 2H), 7.17 (d, *J* = 8.1 Hz, 2H), 7.15 – 7.10 (m, 1H), 7.09 (d, *J* = 7.9 Hz, 2H), 6.99 (d, *J* = 5.5 Hz, 1H), 5.79 (dq, *J* = 10.1, 6.1 Hz, 1H), 4.57 – 4.47 (m, 1H), 4.01 (d, *J* = 10.1 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.28 (s, 3H), 1.24 (d, *J* = 6.2 Hz, 3H), 0.88 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.24, 168.91, 162.24, 159.40, 146.64, 141.73, 141.57, 138.27, 137.43, 136.47, 129.44, 128.46, 127.99, 126.56, 109.68, 73.36, 57.53, 56.27, 47.83, 20.97, 20.75, 19.24, 17.92.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
546	*1253119-11*		(Thin film) 3381, 2982, 1770, 1734, 1675, 1507, 1435, 1309, 1199, 1174, 1045, 907, 804, 729, 699	ESIMS *m/z* 491.2 ($[M+H]^+$)	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.42 (s, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.29 – 7.23 (m, 4H), 7.18 (td, *J* = 6.0, 2.8 Hz, 3H), 7.04 (d, *J* = 7.9 Hz, 2H), 6.99 (d, *J* = 5.5 Hz, 1H), 5.79 (dq, *J* = 9.8, 6.2 Hz, 1H), 4.57 – 4.49 (m, 1H), 4.02 (d, *J* = 9.9 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.25 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.93 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.23, 168.92, 162.25, 159.41, 146.64, 141.59, 138.34, 137.44, 136.15, 129.13, 128.72, 128.09, 127.99, 126.77, 109.68, 73.38, 57.41, 56.28, 47.87, 20.94, 20.76, 19.25, 18.00.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
547	125279779		(Thin film) 3380, 2982, 1770, 1735, 1676, 1507, 1451, 1310, 1200, 1175, 1158, 1047, 908, 816, 769, 729	ESIMS *m/z* 509.1 ($[M+H]^{+}$)	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.41 (s, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.23 (dd, *J* = 8.7, 5.3 Hz, 2H), 7.18 – 7.13 (m, 2H), 7.05 (d, *J* = 7.8 Hz, 2H), 7.01 – 6.93 (m, 3H), 5.74 (dq, *J* = 9.6, 6.2 Hz, 1H), 4.58 – 4.50 (m, 1H), 4.01 (d, *J* = 9.6 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.26 (s, 3H), 1.22 (d, *J* = 6.2 Hz, 3H), 0.94 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.18, 168.91, 162.26, 161.64 (d, *J* = 245.3 Hz), 159.43, 146.63, 141.54, 138.05, 137.45, 137.32 (d, *J* = 3.3 Hz), 136.34, 129.56 (d, *J* = 7.8 Hz), 129.22, 127.94, 115.53 (d, *J* = 21.3 Hz), 109.70, 73.21, 56.51, 56.28, 47.85, 20.94, 20.75, 19.15, 17.99.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
548	125279981		(Thin film) 3379, 2983, 1770, 1736, 1676, 1509, 1452, 1310, 1201, 1175, 1046, 908, 817, 732, 700	ESIMS *m/z* 495.1 ($[M+H]^{+}$)	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.40 (s, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.33 – 7.23 (m, 6H), 7.23 – 7.17 (m, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.93 (t, *J* = 8.6 Hz, 2H), 5.76 (dq, *J* = 9.9, 6.2 Hz, 1H), 4.55 (p, *J* = 7.2 Hz, 1H), 4.05 (d, *J* = 9.8 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 1.23 (d, *J* = 6.2 Hz, 3H), 0.97 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.17, 168.91, 162.28, 161.59 (d, *J* = 245.0 Hz), 159.44, 146.64, 141.48, 141.04, 137.47, 137.16 (d, *J* = 3.4 Hz), 129.60 (d, *J* = 7.9 Hz), 128.84, 128.02, 127.02, 115.28 (d, *J* = 21.1 Hz), 109.74, 73.24, 57.00, 56.28, 47.83, 20.75, 19.22, 18.02.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
549	1262179883		(Thin film) 3380, 2983, 1770, 1735, 1676, 1507, 1451, 1436, 1310, 1201, 1175, 1046, 908, 816, 731	ESIMS *m/z* 509.1 ($[M+H]^{+}$)	^{1}H NMR (500 MHz, $CDCl_3$) δ 8.39 (s, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 7.28 – 7.21 (m, 2H), 7.14 (d, *J* = 8.2 Hz, 2H), 7.09 (d, *J* = 7.9 Hz, 2H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.95 – 6.89 (m, 2H), 5.74 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.58 – 4.50 (m, 1H), 4.00 (d, *J* = 10.0 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.29 (s, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.97 (d, *J* = 7.1 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.18, 168.91, 162.27, 161.54 (d, *J* = 245.1 Hz), 159.44, 146.63, 141.50, 138.06, 137.48 (d, *J* = 3.6 Hz), 136.65, 129.49 (d, *J* = 8.3 Hz), 127.86, 115.24 (d, *J* = 21.3 Hz), 109.73, 73.30, 56.66, 56.28, 47.83, 20.98, 20.75, 19.22, 18.02.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
550	1263798		(Thin film) 3380, 2984, 1770, 1737, 1676, 1503, 1452, 1310, 1200, 1175, 1148, 1048, 907, 731	ESIMS *m/z* 513.2 ($[M+H]^{+}$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39 (d, *J* = 8.1 Hz, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 7.34 – 7.22 (m, 5H), 7.20 – 7.14 (m, 1H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.85 – 6.74 (m, 2H), 5.80 (dtd, *J* = 9.9, 7.3, 6.7, 5.4 Hz, 1H), 4.55 (dt, *J* = 8.1, 7.1 Hz, 1H), 4.41 (d, *J* = 10.0 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 1.27 (d, *J* = 6.1 Hz, 3H), 0.92 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.13, 168.91, 162.27, 162.03 (dd, *J* = 168.8, 12.1 Hz), 160.96 – 159.14 (m), 159.43, 146.64, 141.50, 140.06, 137.46, 129.88 (dd, *J* = 9.6, 5.6 Hz), 128.60, 128.27, 126.99, 124.68 – 124.00 (m), 111.60 (dd, *J* = 21.3, 3.6 Hz), 109.72, 104.55 – 103.34 (m), 72.51, 56.28, 49.35, 47.80, 20.75, 18.92, 17.92.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
551	125279987		(Thin film) 3384, 2983, 1771, 1737, 1677, 1502, 1452, 1310, 1201, 1175, 1148, 1049, 966, 908, 732	ESIMS *m/z* 527.2 ($[M+H]^+$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (s, 1H), 8.32 (d, *J* = 5.5 Hz, 1H), 7.25 – 7.16 (m, 3H), 7.05 (d, *J* = 7.9 Hz, 2H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.84 – 6.73 (m, 2H), 5.77 (dtd, *J* = 9.5, 6.5, 5.2 Hz, 1H), 4.59 – 4.51 (m, 1H), 4.38 (d, *J* = 9.8 Hz, 1H), 3.90 (s, 3H), 2.38 (s, 3H), 2.26 (s, 3H), 1.25 (d, *J* = 6.2 Hz, 3H), 0.96 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.12, 168.92, 162.78 – 159.09 (m), 146.64, 141.53, 137.46, 136.96, 136.56, 129.88 (d, *J* = 5.7 Hz), 129.24, 128.16, 124.64 (d, *J* = 15.0 Hz), 111.52 (d, *J* = 20.8 Hz), 109.71, 104.49 – 103.84 (m), 72.59, 56.28, 48.90, 47.84, 20.96, 20.75, 18.92, 18.00.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
552	125279991		(Thin film) 3384, 2985, 1770, 1737, 1676, 1503, 1201, 1175, 1160, 1148, 966, 847, 825, 811, 732	ESIMS *m/z* 531.2 ($[M+H]^{+}$)	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.37 (d, *J* = 6.0 Hz, 1H), 8.32 (d, *J* = 5.4 Hz, 1H), 7.28 – 7.18 (m, 3H), 7.00 (d, *J* = 5.5 Hz, 1H), 6.97 – 6.90 (m, 2H), 6.86 – 6.75 (m, 2H), 5.76 (dtd, *J* = 9.7, 6.5, 5.2 Hz, 1H), 4.62 – 4.48 (m, 1H), 4.39 (d, *J* = 9.8 Hz, 1H), 3.91 (s, 3H), 2.38 (s, 3H), 1.26 (d, *J* = 6.1 Hz, 3H), 1.00 (d, *J* = 7.2 Hz, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 172.05, 168.91, 163.09 – 159.02 (m), 146.63, 141.42, 137.50, 135.78, 129.82 (d, *J* = 8.2 Hz), 124.23 (d, *J* = 11.3 Hz), 115.42 (d, *J* = 21.3 Hz), 111.98 – 111.29 (m), 109.77, 104.80 – 103.42 (m), 72.42, 56.30, 48.69, 47.81, 20.75, 18.93, 18.00.

Cmpd. No.	Reg. ID	MP (°C)	IR (cm^{-1})	MASS	NMR (^{1}H, ^{13}C, ^{19}F)
553	125288[illegible]			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{28}H_{30}FN_2O_6$, 509.2088; found, 509.2074	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.41 (d, *J* = 7.4 Hz, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.32 - 7.20 (m, 4H), 7.19 - 7.11 (m, 1H), 7.12 - 7.02 (m, 2H), 6.98 (d, *J* = 5.5 Hz, 1H), 6.90 (dd, *J* = 9.6, 8.1 Hz, 1H), 5.76 (dq, *J* = 10.0, 6.2 Hz, 1H), 4.59 - 4.45 (m, 1H), 3.99 (d, *J* = 10.1 Hz, 1H), 3.88 (s, 3H), 2.37 (s, 3H), 2.22 (d, *J* = 2.0 Hz, 3H), 1.23 (d, *J* = 6.1 Hz, 3H), 0.90 (d, *J* = 7.2 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -120.17.
554	125288[illegible]			HRMS-ESI (*m/z*) ($[M+H]^+$) calcd for $C_{29}H_{31}F_2N_2O_7$, 557.2099; found, 557.2091	^{1}H NMR (400 MHz, $CDCl_3$) δ 8.40 (s, 1H), 8.31 (d, *J* = 5.4 Hz, 1H), 7.32 - 7.23 (m, 1H), 7.11 - 7.01 (m, 2H), 6.99 (d, *J* = 5.5 Hz, 1H), 6.88 (t, *J* = 9.3 Hz, 1H), 6.58 (td, *J* = 8.3, 2.5 Hz, 1H), 6.52 (dd, *J* = 10.9, 2.5 Hz, 1H), 5.74 (dq, *J* = 10.1, 6.2 Hz, 1H), 4.55 (dq, *J* = 8.1, 7.2 Hz, 1H), 4.46 (d, *J* = 10.1 Hz, 1H), 3.90 (s, 3H), 3.77 (s, 3H), 2.38 (s, 3H), 2.21 (d, *J* = 1.9 Hz, 3H), 1.20 (d, *J* = 6.1 Hz, 3H), 0.99 (d, *J* = 7.1 Hz, 3H). ^{19}F NMR (376 MHz, $CDCl_3$) δ -113.46, -120.45.

*Cmpd. No. – Compound Number

Table 3. Biological Testing Rating Scale

Rating Table for Fungal Pathogens	
% Control	Rating
> 80	A
≤ 80	B
Not Tested	C
No Activity Observed in the Reported Assay	D

Table 4. Biological Activity – PUCCRT and SEPTTR Disease Control in High and Low Volume Applications

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
Cmpd. No.	1DP*	3DC*	1DP*	3DC*	1DP*	3DC*	1DP*	3DC*
89	C	C	C	C	C	C	C	C
90	A	A	A	A	C	C	C	C
91	A	B	A	D	C	C	C	C
92	A	A	A	A	A	B	A	A
93	B	D	A	B	C	C	C	C
95	C	C	C	C	C	C	C	C
96	A	A	A	A	C	C	C	C
97	B	D	A	A	C	C	C	C
98	A	A	A	A	C	C	C	C
99	A	B	A	A	C	C	C	C
100	A	A	A	A	C	C	C	C
101	D	D	B	D	C	C	C	C
102	B	D	B	B	C	C	C	C
103	A	B	A	A	C	C	C	C
104	A	D	B	A	C	C	C	C
105	A	A	A	A	C	C	C	C
106	A	D	A	A	C	C	C	C
107	A	B	A	A	C	C	C	C
109	B	D	D	B	C	C	C	C

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
110	A	D	A	A	C	C	C	C
111	B	D	B	A	C	C	C	C
112	D	D	B	B	C	C	C	C
113	A	B	A	B	C	C	C	C
114	A	A	A	A	C	C	C	C
115	B	D	A	A	C	C	C	C
116	B	D	B	B	C	C	C	C
117	A	B	A	A	C	C	C	C
118	A	A	B	A	C	C	C	C
119	D	D	A	B	C	C	C	C
120	A	B	A	A	C	C	C	C
121	A	B	A	A	C	C	C	C
122	D	D	B	B	C	C	C	C
123	B	D	B	A	C	C	C	C
124	A	A	A	A	C	C	C	C
125	A	A	A	A	C	C	C	C
127	B	D	B	D	C	C	C	C
128	B	D	A	B	C	C	C	C
129	A	B	A	A	C	C	C	C
130	B	D	A	D	C	C	C	C
131	A	D	A	A	C	C	C	C
132	A	B	A	A	C	C	C	C
133	A	A	A	A	C	C	C	C
135	B	D	B	D	C	C	C	C
136	A	B	A	B	C	C	C	C
137	A	B	A	A	C	C	C	C
138	C	C	C	C	D	B	A	B
139	C	C	C	C	A	A	A	A
140	C	C	C	C	A	B	A	A
141	C	C	C	C	A	A	A	A
142	C	C	C	C	A	A	A	A
143	C	C	C	C	B	D	D	B
144	C	C	C	C	B	B	B	B
145	C	C	C	C	A	A	A	A
146	C	C	C	C	A	A	A	A
147	C	C	C	C	B	B	B	A
148	C	C	C	C	A	A	A	A

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
149	C	C	C	C	B	B	A	A
150	C	C	C	C	A	A	A	A
152	C	C	C	C	B	B	A	A
153	C	C	C	C	B	B	A	A
155	C	C	C	C	A	A	A	A
156	C	C	C	C	A	A	A	A
157	C	C	C	C	A	A	A	A
158	C	C	C	C	A	A	A	A
159	C	C	C	C	A	A	A	A
160	C	C	C	C	A	B	A	A
161	C	C	C	C	D	D	B	A
162	C	C	C	C	D	D	D	B
163	C	C	C	C	B	D	B	A
164	C	C	C	C	D	D	B	D
165	C	C	C	C	A	B	A	A
166	C	C	C	C	B	D	B	B
167	C	C	C	C	A	A	A	A
168	C	C	C	C	A	B	A	A
169	C	C	C	C	A	B	A	A
170	C	C	C	C	B	B	B	B
171	C	C	C	C	A	A	A	A
173	C	C	C	C	A	B	A	A
174	C	C	C	C	A	B	A	A
175	C	C	C	C	A	A	A	A
176	C	C	C	C	A	A	A	A
178	C	C	C	C	B	D	A	A
179	C	C	C	C	B	D	A	A
180	C	C	C	C	D	D	B	D
181	C	C	C	C	D	D	B	B
182	C	C	C	C	D	B	D	B
183	C	C	C	C	A	A	A	B
184	C	C	C	C	A	A	A	A
185	C	C	C	C	A	B	A	A
186	C	C	C	C	B	D	A	B
187	C	C	C	C	A	B	B	B
188	C	C	C	C	A	B	A	A
189	C	C	C	C	A	B	A	A

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
190	C	C	C	C	B	D	B	B
191	C	C	C	C	A	A	A	A
192	C	C	C	C	A	A	A	A
193	C	C	C	C	B	D	A	A
194	C	C	C	C	A	B	A	A
195	C	C	C	C	A	B	A	B
196	C	C	C	C	D	D	A	B
197	C	C	C	C	A	A	A	A
198	C	C	C	C	A	B	A	A
199	C	C	C	C	A	A	A	A
201	C	C	C	C	B	D	A	A
202	C	C	C	C	D	D	A	A
203	C	C	C	C	A	B	A	A
204	C	C	C	C	A	A	A	A
206	C	C	C	C	A	B	A	A
207	C	C	C	C	D	D	A	A
208	C	C	C	C	A	B	A	A
209	C	C	C	C	A	B	A	A
210	C	C	C	C	A	B	A	A
211	C	C	C	C	A	A	A	A
212	C	C	C	C	A	A	A	A
213	C	C	C	C	B	B	A	A
214	C	C	C	C	D	D	D	D
215	C	C	C	C	A	D	A	A
216	C	C	C	C	A	B	A	B
217	C	C	C	C	A	B	A	A
218	C	C	C	C	A	B	A	A
219	C	C	C	C	A	D	A	A
220	C	C	C	C	A	B	A	A
221	C	C	C	C	B	D	B	A
222	C	C	C	C	A	D	A	A
223	C	C	C	C	B	D	B	B
224	C	C	C	C	B	D	A	A
225	C	C	C	C	D	D	D	D
228	C	C	C	C	C	C	C	C
229	C	C	C	C	D	D	D	B
230	C	C	C	C	D	D	D	D
386	B	D	B	D	C	C	C	C
387	A	B	A	B	C	C	C	C

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
388	B	B	A	A	C	C	C	C
389	A	D	D	D	C	C	C	C
390	A	B	A	D	C	C	C	C
391	A	A	A	A	C	C	C	C
392	A	B	A	D	C	C	C	C
393	C	C	C	C	C	C	C	C
394	B	D	A	B	C	C	C	C
395	A	A	A	A	C	C	C	C
396	A	A	A	A	C	C	C	C
397	A	D	A	A	C	C	C	C
398	B	B	B	B	C	C	C	C
399	A	A	A	A	C	C	C	C
400	A	A	A	A	C	C	C	C
401	A	B	A	A	C	C	C	C
402	A	B	A	B	C	C	C	C
403	A	B	A	A	C	C	C	C
404	A	A	A	A	C	C	C	C
405	A	A	A	A	C	C	C	C
406	A	A	A	A	C	C	C	C
407	A	A	A	A	C	C	C	C
408	A	B	A	A	C	C	C	C
409	A	D	A	A	C	C	C	C
410	B	D	B	B	C	C	C	C
411	A	B	A	A	C	C	C	C
412	C	C	C	C	C	C	C	C
413	A	B	A	A	C	C	C	C
414	B	D	A	B	C	C	C	C
415	A	B	A	A	C	C	C	C
416	A	D	A	B	C	C	C	C
417	A	D	B	B	C	C	C	C
418	A	A	A	A	C	C	C	C
419	B	D	B	B	C	C	C	C
420	B	D	B	D	C	C	C	C
421	D	D	D	D	C	C	C	C
422	D	D	B	D	C	C	C	C
423	A	A	A	A	C	C	C	C
424	A	B	A	A	C	C	C	C
425	A	A	A	A	C	C	C	C
426	A	D	A	A	C	C	C	C

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
427	B	D	B	B	C	C	C	C
428	B	D	B	A	C	C	C	C
429	B	D	B	B	C	C	C	C
430	A	B	A	A	C	C	C	C
431	A	A	A	A	C	C	C	C
432	B	A	A	A	C	C	C	C
433	A	A	A	A	C	C	C	C
434	A	A	A	A	C	C	C	C
435	A	A	A	A	C	C	C	C
436	A	A	A	A	C	C	C	C
437	A	A	A	A	C	C	C	C
438	A	A	A	A	C	C	C	C
439	A	A	A	A	C	C	C	C
440	A	A	A	A	C	C	C	C
441	A	B	A	A	C	C	C	C
442	A	A	A	A	C	C	C	C
443	A	A	A	A	C	C	C	C
444	A	A	A	A	C	C	C	C
445	A	B	A	A	C	C	C	C
446	A	B	A	A	C	C	C	C
447	A	A	A	A	C	C	C	C
448	A	A	A	A	C	C	C	C
449	A	A	A	A	C	C	C	C
450	A	B	A	A	C	C	C	C
451	A	A	A	A	C	C	C	C
452	A	A	A	A	C	C	C	C
453	A	A	A	A	C	C	C	C
454	A	A	A	A	C	C	C	C
455	A	A	A	A	C	C	C	C
456	A	A	A	A	C	C	C	C
457	A	A	A	A	C	C	C	C
458	A	A	A	A	C	C	C	C
459	A	A	A	A	C	C	C	C
460	A	A	A	A	C	C	C	C
461	A	A	A	A	C	C	C	C
462	C	C	C	C	D	D	D	B
463	C	C	C	C	D	D	D	B

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
464	C	C	C	C	A	A	A	A
465	C	C	C	C	B	D	D	D
466	C	C	C	C	B	D	A	B
467	C	C	C	C	B	B	A	B
468	C	C	C	C	A	B	A	A
469	C	C	C	C	B	D	D	D
470	C	C	C	C	B	B	B	B
471	C	C	C	C	A	B	A	A
472	C	C	C	C	A	A	A	A
473	C	C	C	C	B	B	A	A
474	C	C	C	C	B	D	A	A
475	C	C	C	C	A	A	A	A
476	C	C	C	C	A	A	A	A
477	C	C	C	C	B	B	A	A
478	C	C	C	C	B	D	A	B
479	C	C	C	C	D	D	A	B
480	C	C	C	C	D	B	D	D
481	C	C	C	C	B	B	B	A
482	C	C	C	C	B	A	B	A
483	C	C	C	C	B	B	A	B
484	C	C	C	C	A	B	A	B
485	C	C	C	C	A	A	A	A
486	C	C	C	C	A	B	A	A
487	C	C	C	C	A	A	B	A
488	C	C	C	C	A	B	A	A
489	C	C	C	C	A	A	A	A
490	C	C	C	C	A	B	A	A
491	C	C	C	C	A	B	A	A
492	C	C	C	C	B	B	A	A
493	C	C	C	C	B	B	B	B
494	C	C	C	C	B	B	B	B
495	C	C	C	C	B	B	B	D
496	C	C	C	C	A	B	A	A
497	C	C	C	C	A	B	A	B
498	C	C	C	C	A	B	A	A
499	C	C	C	C	B	D	A	A
500	C	C	C	C	A	B	A	A
501	C	C	C	C	B	B	A	B

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
502	C	C	C	C	A	B	B	D
503	C	C	C	C	A	B	A	A
504	C	C	C	C	A	D	B	B
505	C	C	C	C	B	D	B	D
506	C	C	C	C	D	D	D	D
507	C	C	C	C	D	D	B	D
508	C	C	C	C	A	A	A	A
509	C	C	C	C	A	B	B	B
510	C	C	C	C	A	A	A	A
511	C	C	C	C	D	B	D	D
512	C	C	C	C	D	D	D	D
513	C	C	C	C	B	D	D	D
514	C	C	C	C	D	D	D	D
515	C	C	C	C	D	D	D	D
516	C	C	C	C	A	A	A	A
517	C	C	C	C	A	B	D	B
518	C	C	C	C	A	A	A	A
519	C	C	C	C	B	B	A	B
520	C	C	C	C	D	D	D	D
521	C	C	C	C	B	B	A	B
522	C	C	C	C	B	D	A	B
523	C	C	C	C	A	A	A	A
524	C	C	C	C	A	A	A	A
525	C	C	C	C	A	A	A	A
526	C	C	C	C	A	B	A	A
527	C	C	C	C	A	B	A	A
528	C	C	C	C	A	B	A	A
529	C	C	C	C	A	B	A	A
530	C	C	C	C	A	D	A	A
531	C	C	C	C	A	A	A	A
532	C	C	C	C	A	A	A	A
533	C	C	C	C	A	A	A	A
534	C	C	C	C	A	B	A	A
535	C	C	C	C	A	A	A	A
536	C	C	C	C	A	B	A	A
537	C	C	C	C	A	A	A	A
538	C	C	C	C	A	B	A	A
539	C	C	C	C	A	B	A	A
540	C	C	C	C	A	B	A	A

	HV activity at 100 ppm				LV activity at 121.5 g/H			
	PUCCRT*		SEPTTR*		PUCCRT*		SEPTTR*	
541	C	C	C	C	A	B	A	A
542	C	C	C	C	A	B	A	A
543	C	C	C	C	A	B	A	A
544	C	C	C	C	A	A	A	A
545	C	C	C	C	A	A	A	A
546	C	C	C	C	A	A	A	A
547	C	C	C	C	A	A	A	A
548	C	C	C	C	A	A	A	A
549	C	C	C	C	A	A	A	A
550	C	C	C	C	A	A	A	A
551	C	C	C	C	A	A	A	A
552	C	C	C	C	A	A	A	A
553	C	C	C	C	A	A	A	A
554	C	C	C	C	A	A	A	A

*Cmpd. No. – Compound Number
*PUCCRT – Wheat Brown Rust (*Puccinia triticina*)
*SEPTTR – Wheat Leaf Blotch (*Zymoseptoria tritici*)
*1DP – 1 Day Protectant
*3DC – 3 Day Curative
*g/H – Grams Per Hectare
*ppm – Parts Per Million

Table 5. Biological Activity – Disease Control at 100 ppm

	ALTESO*	CERCBE*	COLLLA*	LEPTNO*
Cmpd. No.	1DP*			
92	B	A	A	A
139	B	A	A	A
140	A	A	A	A
141	B	A	A	A
142	A	A	A	A
145	A	A	A	A
146	A	A	A	A
148	B	A	A	A
150	A	A	A	A
167	A	A	A	A
171	B	A	A	A

	ALTESO*	CERCBE*	COLLLA*	LEPTNO*
Cmpd. No.	1DP*			
174	B	A	A	A
176	B	A	A	A
199	A	A	A	A
204	A	A	A	A
464	B	A	A	A
468	A	A	A	A
472	B	A	A	A
475	B	A	A	A
524	A	A	A	A
528	B	A	A	A
532	B	A	A	A

*Cmpd. No. – Compound Number
*ALTESO – Tomato Early Blight (*Alternaria solani)*
*CERCBE – Leaf Spot of Sugar Beets (*Cercospora beticola)*
*COLLLA – Cucumber Anthracnose (*Colletotricum lagenarium*)
*LEPTNO – Wheat Glume Blotch (*Leptosphaeria nodorum*)
*1DP – 1 Day Protectant

Table 6. Biological Activity – Disease Control at 100 ppm

	PYRIOR*	RHYNSE*	VENTIN*
Cmpd. No.	1DP*		
92	C	A	C
139	A	A	A
140	A	C	A
141	A	A	A
142	A	A	A
145	A	A	A
146	A	A	A
148	A	A	A
150	A	A	A
167	A	A	C
171	A	A	C
174	A	A	B
176	A	A	A
199	A	A	C
204	A	A	C
464	A	A	A

	PYRIOR*	RHYNSE*	VENTIN*
Cmpd. No.	1DP*		
468	A	A	A
472	A	A	A
475	A	A	B
524	A	A	A
528	A	A	A
532	C	A	C

*Cmpd. No. – Compound Number
*PYRIOR –. Rice Blast (*Pyricularia oryzae*)
*RHYNSE – Barley Scald (*Rhyncosporium secalis*)
*VENTIN – Apple Scab (*Venturia inaequalis*)
*1DP – 1 Day Protectant

Table 7. Biological Activity – Disease Control at 25 ppm

	PHAKPA*	
Cmpd. No.	1DP*	3DC*
139	A	B
140	B	D
141	A	B
142	A	B
92	B	B
145	A	B
146	A	B
148	A	B
150	A	A
158	A	B
167	A	B
169	A	D
171	A	B
173	B	D
174	A	B
175	B	D
176	B	B
199	A	B
204	A	B
207	B	D
208	A	B
209	A	B

	PHAKPA*	
Cmpd. No.	1DP*	3DC*
210	A	D
211	A	B
212	B	D
213	A	B
464	A	A
468	A	B
472	A	B
475	A	B
493	D	D
494	D	D
495	B	D
496	B	D
497	D	D
498	A	B
499	B	B
500	A	B
501	B	B
502	B	D
503	A	D
504	B	D
505	D	D
506	D	D
507	D	D
508	B	D
509	D	D
510	B	D
511	D	D
512	D	D
513	D	D
514	D	D
515	D	D
516	B	D
517	B	D
518	B	D
519	D	B
520	D	D
521	B	D
522	B	D
523	A	B

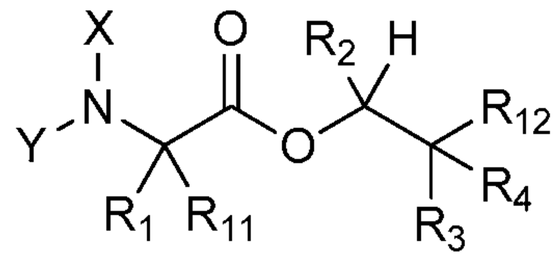
	PHAKPA*	
Cmpd. No.	1DP*	3DC*
524	A	B
525	A	B
526	A	D
527	A	B
528	A	B
529	A	B
530	A	B
531	A	B
532	A	B
533	A	B
534	A	B
535	B	D
536	A	B
537	A	B
538	B	B
539	A	B
540	A	B
541	A	B
542	B	D
543	A	B
544	A	B
545	B	D
546	A	B
547	A	B
548	A	D
549	B	D
550	A	B
551	A	B
552	A	B
553	B	D
554	B	D

*Cmpd. No. – Compound Number
*PHAKPA – Asian Soybean Rust (*Phakopsora pachyrhizi*)
*1DP – 1 Day Protectant
*3DC – 3 Day Curative

CLAIMS

What is claimed is:

1. A composition for the control of a fungal pathogen including mixtures of at least one of the compounds of Formula 1



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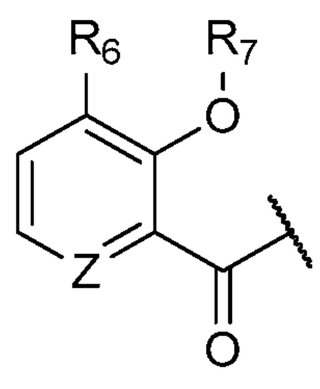
wherein:

X is hydrogen or $C(O)R_5$;

Y is hydrogen, $C(O)R_5$, or Q;

Q is



;

wherein: Z is N or CH:

R_1 is hydrogen or alkyl, substituted with 0, 1 or multiple R_8;

R_2 is methyl;

R_3 is chosen from aryl or heteroaryl, each optionally substituted with 0, 1 or multiple R_8;

R_4 is chosen from hydrogen, halo, hydroxyl, alkyl or alkoxy;

R_5 is chosen from alkoxy or benzyloxy, each optionally substituted with 0, 1, or multiple R_8;

R_6 is chosen from hydrogen, alkoxy, or halo, each optionally substituted with 0, 1, or multiple R_8;

R_7 is chosen from hydrogen, $–C(O)R_9$, or $–CH_2OC(O)R_9$;

R_8 is chosen from hydrogen, alkyl, aryl, acyl, halo, alkenyl, alkynyl, alkoxy, cyano, or heterocyclyl, each optionally substituted with 0, 1, or multiple $R_{10;}$

R_9 is chosen from alkyl, alkoxy, or aryl, each optionally substituted with 0, 1, or multiple R_8;

R_{10} is chosen from hydrogen, alkyl, aryl, acyl, halo, alkenyl, alkoxy, or heterocyclyl;

R_{11} is chosen from hydrogen or alkyl, substituted with 0, 1 or multiple R_8;

R_{12} is chosen from aryl or heteroaryl, each optionally substituted with 0, 1 or multiple R_8; and

a phytologically acceptable carrier material.

2. The composition according to Claim 1, wherein X is hydrogen and Y is Q.

3. The composition according to Claim 2, wherein Z is N.

4. The composition according to Claim 3, wherein R_6 is alkoxy.

5. The composition according to Claim 4, wherein R_7 is hydrogen.

6. The composition according to Claim 5, wherein R_1 and R_{11} are independently chosen from hydrogen or alkyl, R_3 and R_{12} are independently aryl, each optionally substituted with 0, 1 or multiple R_8, and R_4 is H.

7. The composition according to Claim 4, wherein R_7 is chosen from $–C(O)R_9$, or

$–CH_2OC(O)R_9$.

8. The composition according to Claim 7, wherein R_9 is alkyl, optionally substituted with 0, 1 or multiple R_8.

9. The composition according to Claim 8, wherein R_1 and R_{11} are independently chosen from hydrogen or alkyl, R_3 and R_{12} are independently aryl, each optionally substituted with 0, 1 or multiple R_8, and R_4 is H.

10. The composition according to Claim 9, wherein R_9 is chosen from $–CH_3$, $–CH_2OCH_2CH_3$, $–CH_2CH_2OCH_3$, $–CH(CH_3)_2$, $–CH_2CH_2CH_2CH_3$, –cyclopropyl.

11. The composition according to Claim 1 wherein the fungal pathogen is one of Leaf Blotch of Wheat (*Zymoseptoria tritici*), Wheat Brown Rust (*Puccinia triticina*), Stripe Rust (*Puccinia striiformis*), Scab of Apple (*Venturia inaequalis*), Blister Smut of Maize (*Ustilago maydis*), Powdery Mildew of Grapevine (*Uncinula necator*), Barley scald (*Rhynchosporium secalis*), Blast of Rice (*Pyricularia oryzae*), Rust of Soybean (*Phakopsora pachyrhizi*), Glume Blotch of Wheat (*Leptosphaeria nodorum*), Powdery Mildew of Wheat (*Blumeria graminis* f. sp.*tritici*), Powdery Mildew of Barley (*Blumeria graminis* f. sp. *hordei*), Powdery Mildew of Cucurbits (*Erysiphe cichoracearum*), Anthracnose of Cucurbits (*Colletotrichum lagenarium*), Leaf Spot of Beet (*Cercospora beticola*), Early Blight of Tomato (*Alternaria solani*), and Net Blotch of Barley (*Pyrenophora teres*).

12. The composition according to Claim 6 wherein the fungal pathogen is one of Leaf Blotch of Wheat (*Zymoseptoria tritici*), Wheat Brown Rust (*Puccinia triticina*), Scab of Apple (*Venturia inaequalis*), Barley scald (*Rhynchosporium secalis*), Blast of Rice (*Pyricularia oryzae*), Rust of Soybean (*Phakopsora pachyrhizi*), Glume Blotch of Wheat (*Leptosphaeria nodorum*), Anthracnose of Cucurbits (*Colletotrichum lagenarium*), Leaf Spot of Beet (*Cercospora beticola*), and Early Blight of Tomato (*Alternaria solani*).

13. The composition according to Claim 7 wherein the fungal pathogen is one Leaf Blotch of Wheat (*Zymoseptoria tritici*), Wheat Brown Rust (*Puccinia triticina*), Scab of Apple (*Venturia inaequalis*), Barley scald (*Rhynchosporium secalis*), Blast of Rice (*Pyricularia oryzae*), Rust of Soybean (*Phakopsora pachyrhizi*), Glume Blotch of Wheat (*Leptosphaeria nodorum*), Anthracnose of Cucurbits (*Colletotrichum lagenarium*), Leaf Spot of Beet (*Cercospora beticola*), and Early Blight of Tomato (*Alternaria solani*)

14. The composition according to Claim 9 wherein the fungal pathogen is one of Leaf Blotch of Wheat (*Zymoseptoria tritici*), Wheat Brown Rust (*Puccinia triticina*), Scab of Apple (*Venturia inaequalis*), Barley scald (*Rhynchosporium secalis*), Blast of Rice (*Pyricularia oryzae*), Rust of Soybean (*Phakopsora pachyrhizi*), Glume Blotch of Wheat (*Leptosphaeria nodorum*), Anthracnose of Cucurbits (*Colletotrichum lagenarium*), Leaf Spot of Beet (*Cercospora beticola*), and Early Blight of Tomato (*Alternaria solani*).

15. The composition according to Claim 10 wherein the fungal pathogen is one of Leaf Blotch of Wheat (*Zymoseptoria tritici*), Wheat Brown Rust (*Puccinia triticina*), Scab of Apple (*Venturia inaequalis*), Barley scald (*Rhynchosporium secalis*), Blast of Rice (*Pyricularia oryzae*), Rust of Soybean (*Phakopsora pachyrhizi*), Glume Blotch of Wheat (*Leptosphaeria nodorum*), Anthracnose of Cucurbits (*Colletotrichum lagenarium*), Leaf Spot of Beet (*Cercospora beticola*), and Early Blight of Tomato (*Alternaria solani*).

16. A method for the control and prevention of fungal attack on a plant, the method including the step of:

applying a fungicidally effective amount of at least one of the compositions of Claim 6 to at least one of the plant, an area adjacent to the plant, soil adapted to support growth of the plant, a root of the plant, and foliage of the plant.

17. A method for the control and prevention of fungal attack on a plant, the method including the step of:

applying a fungicidally effective amount of at least one of the compositions of Claim 9 to at least one of the plant, an area adjacent to the plant, soil adapted to support growth of the plant, a root of the plant, and foliage of the plant.

18. A method for the control and prevention of fungal attack on a plant, the method including the step of:

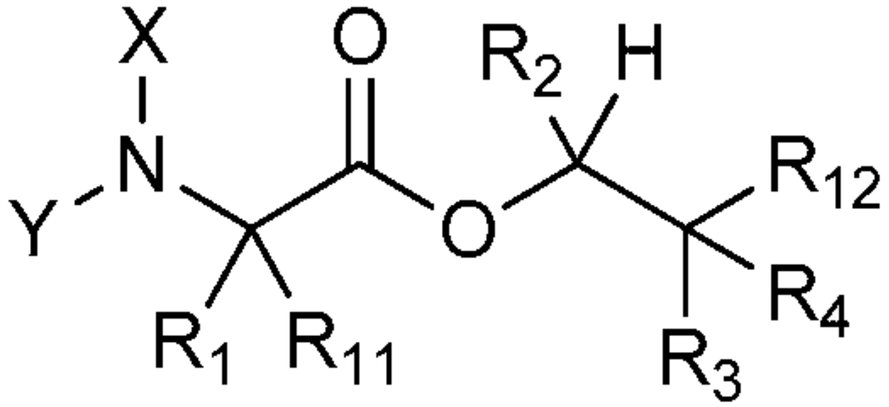
applying a fungicidally effective amount of at least one of the compositions of Claim 10 to at least one of the plant, an area adjacent to the plant, soil adapted to support growth of the plant, a root of the plant, and foliage of the plant.

19. A method for the control and prevention of fungal attack on a plant, the method including the step of:

applying a fungicidally effective amount of at least one of the compositions of Claim 11 to at least one of the plant, an area adjacent to the plant, soil adapted to support growth of the plant, a root of the plant, and foliage of the plant.

20. A method for the control and prevention of fungal attack on a plant, the method including the step of:

applying a fungicidally effective amount of at least one of the compositions of Claim 15 to at least one of the plant, an area adjacent to the plant, soil adapted to support growth of the plant, a root of the plant, and foliage of the plant.



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