Abstract

An improved one-pot process for the preparation of cinacalcet of Formula (I) and its pharmaceutically acceptable salts

which comprises:

a) reacting 3-[3-(Trifluoromethyl) phenyl] propionaldehyde of Formula (II)

with (R)-1-(1-napthyl) ethylamine of Formula (III)

in presence of base and organic solvent to give cinacalcet imine intermediate of Formula (IV);

- b) reducing the cinacalcet imine intermediate of formula (IV) by metal reducing agent in presence of a solvent to give cinacalcet base of formula (I);
- c) converting the cinacalcet of formula (I) into its pharmaceutically acceptable salts; and
- d) purification of cinacalcet and its pharmaceutically acceptable salts.