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(54) Title: NOVEL BIOACTIVE LIPID DERIVATIVES, IMMUNE-DERIVED MOIETIES REACTIVE THERETO, AND METHODS OF MAKING AND USING THE SAME

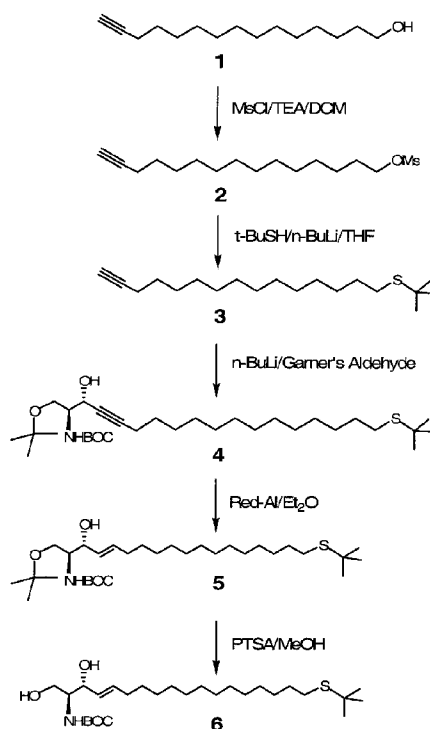


Figure 1a. Synthesis of Typical Thiolated S1P-Related Antigen

(57) Abstract: Compositions and methods for producing monoclonal antibodies and their derivatives reactive against bioactive lipid targets are described. These compositions include derivatized lipids, each of which comprises a bioactive lipid that having a polar head group and at least one hydrocarbon chain (e.g., a lysolipid such as lysophosphatidic acid) in which a carbon atom has been derivatized with a pendant reactive group; immunogens made by linking a derivatized lipid to a carrier moiety (e.g., a carrier protein, polyethylene glycol); monoclonal antibodies and derivatives produced by immunizing an animal with such an immunogen; and therapeutic and diagnostic compositions containing such antibodies and antibody derivatives. Methods for making such derivatized lipids, immunogens, and monoclonal antibodies and derivatives, and detecting or using such antibodies once generated, are also described.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER

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USPC - 554/101, 530/387.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
554/101, 530/387.1Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
554/101, 530/387.1; keyword search, as below

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Pub-WEST(PGPB,USPT,EPAB,JPAB); Google Scholar

Search Terms Used: Lipid derivatives, bioactive lipids, bioactive lipid, novel fat metabolites, polar lipid head groups, derivatized lipid, lysolipid, novel lipid antibodies, derivatized antibody treatments, lipid antibody treatments

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5620689 B1 (Allen) 15 April 1997, (15.04.1997), col. 3 In 20-col. 10 In. 20, Figure 1, 2, 3, 4	1-7, 15, 20, 22
Y		8-14, 16-19, 21, 23-38
Y	US 6300308 B1 (Schroit) 09 October 2001 (09.10.2001), col. 1 In 15-col. 12 In. 45	8-14, 16-19, 21, 23-31, 35-38
Y	US 5888793 B1 (Hillman) 30 May 1999 (30.05.1999), col. 1 In. 55-col. 18 In 35	32-34

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