SUPPLEMENTARY INFORMATION

Lipid structure influences the ability of glucose monocorynomycolate to signal through Mincle

Phillip L. van der Peet,[a] Masahiro Nagata,[b] Sayali Shah,[a] Jonathan M. White,[a] Sho Yamasaki,[b] Spencer J. Williams[a,*]

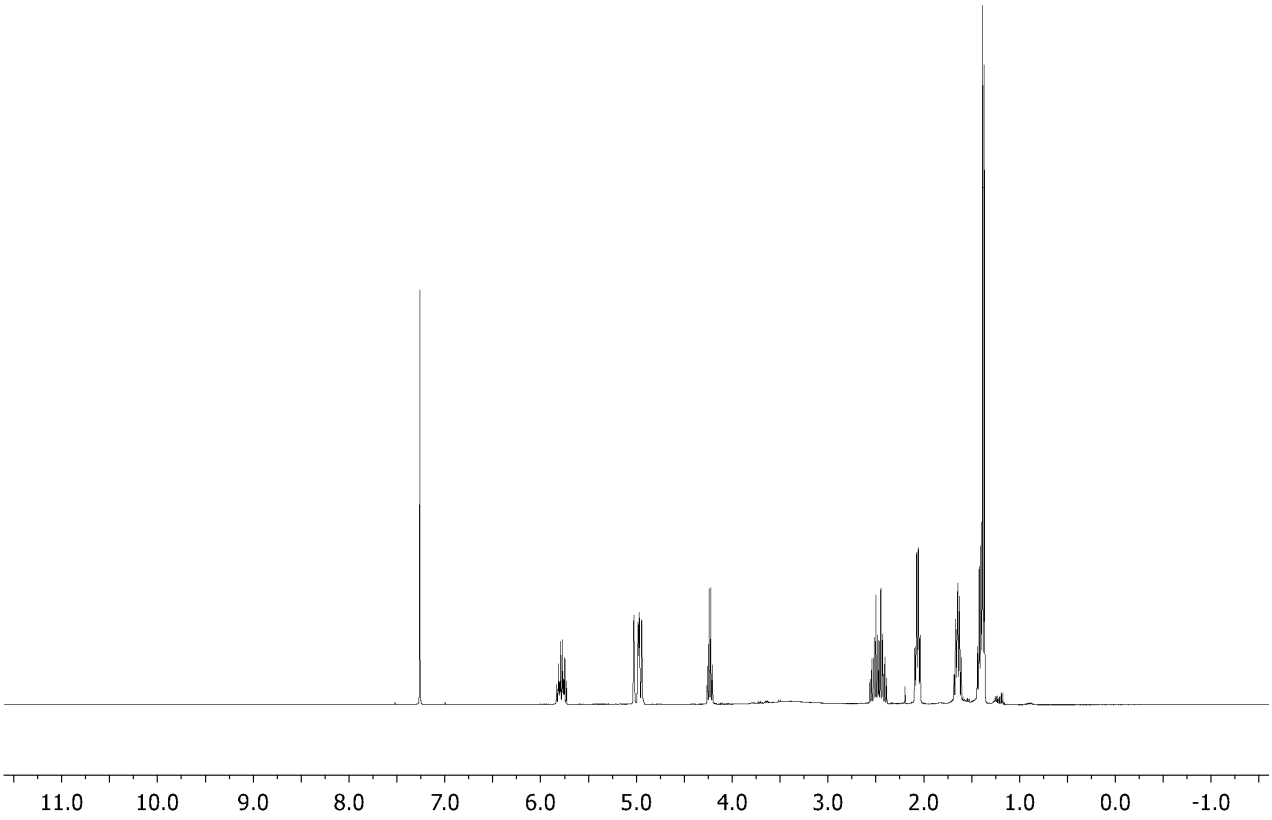
[a] School of Chemistry and Bio21 Molecular Science and Biotechnology Institute, University of Melbourne, Parkville, Victoria, Australia 3010

[b] Division of Molecular Immunology, Medical Institute of Bioregulation, Kyushu University, Fukuoka 812-8582, Japan.

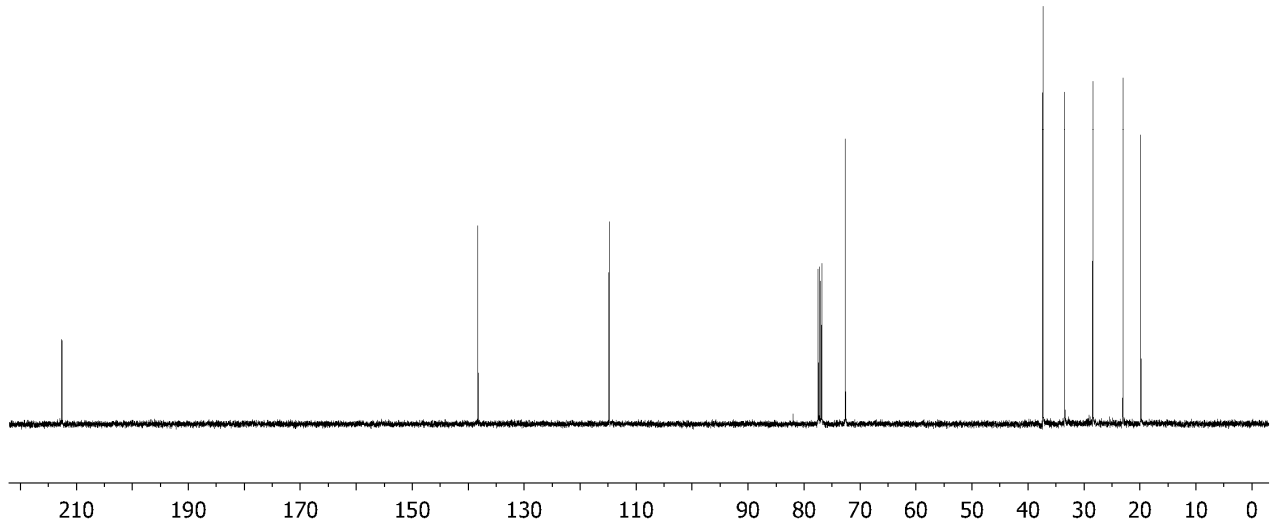
Table of Contents

(*S*)-8-Hydroxy-7-oxo-non-1-ene (10)

^{1}H NMR

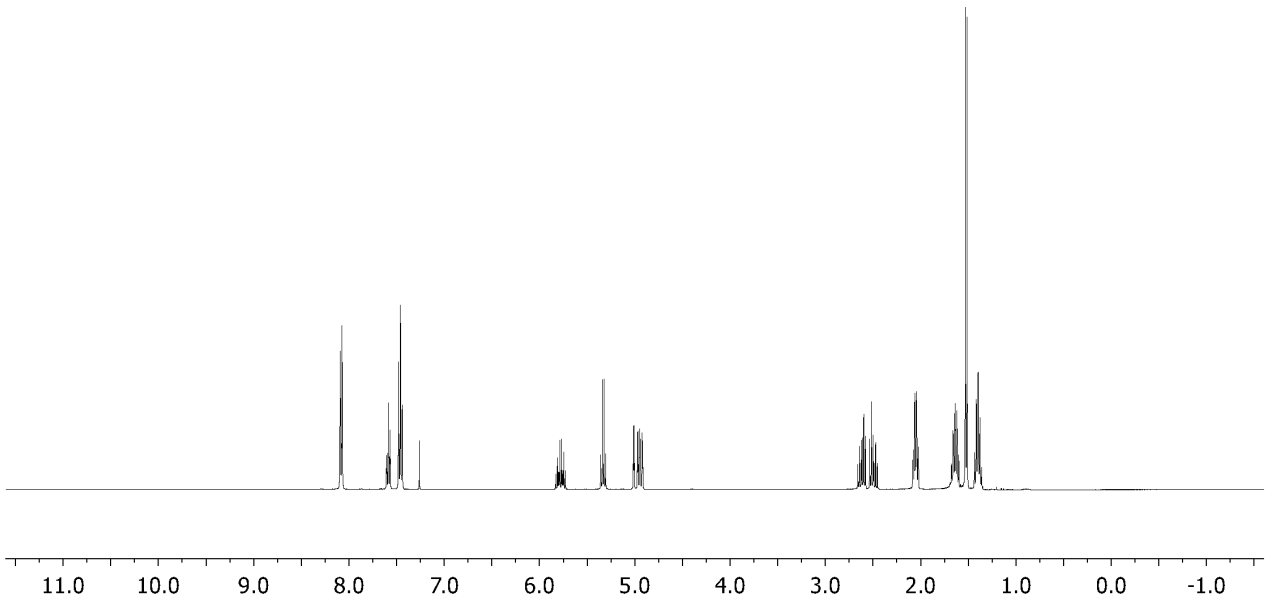


^{13}C NMR

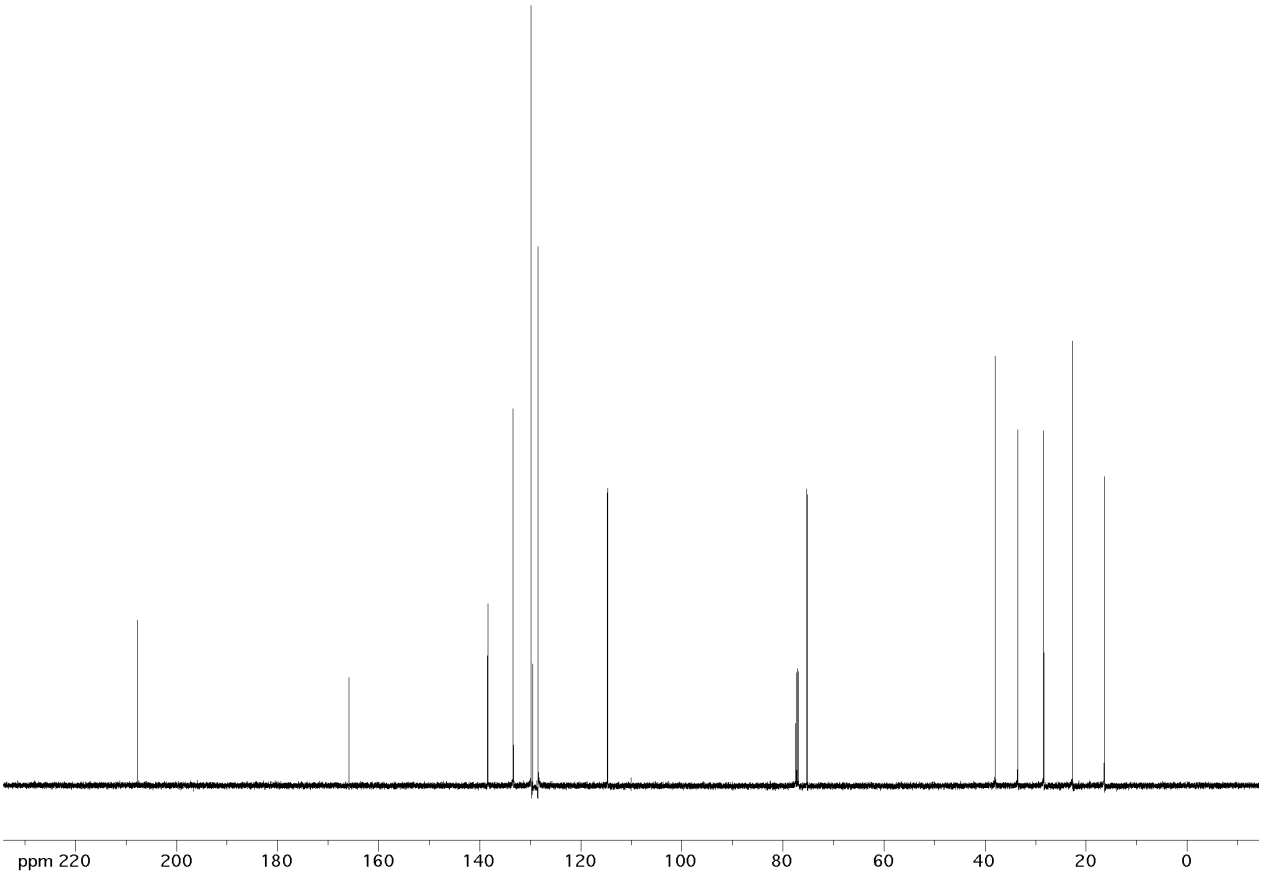


(*S*)-7-Oxonon-1-en-8-yl benzoate (11)

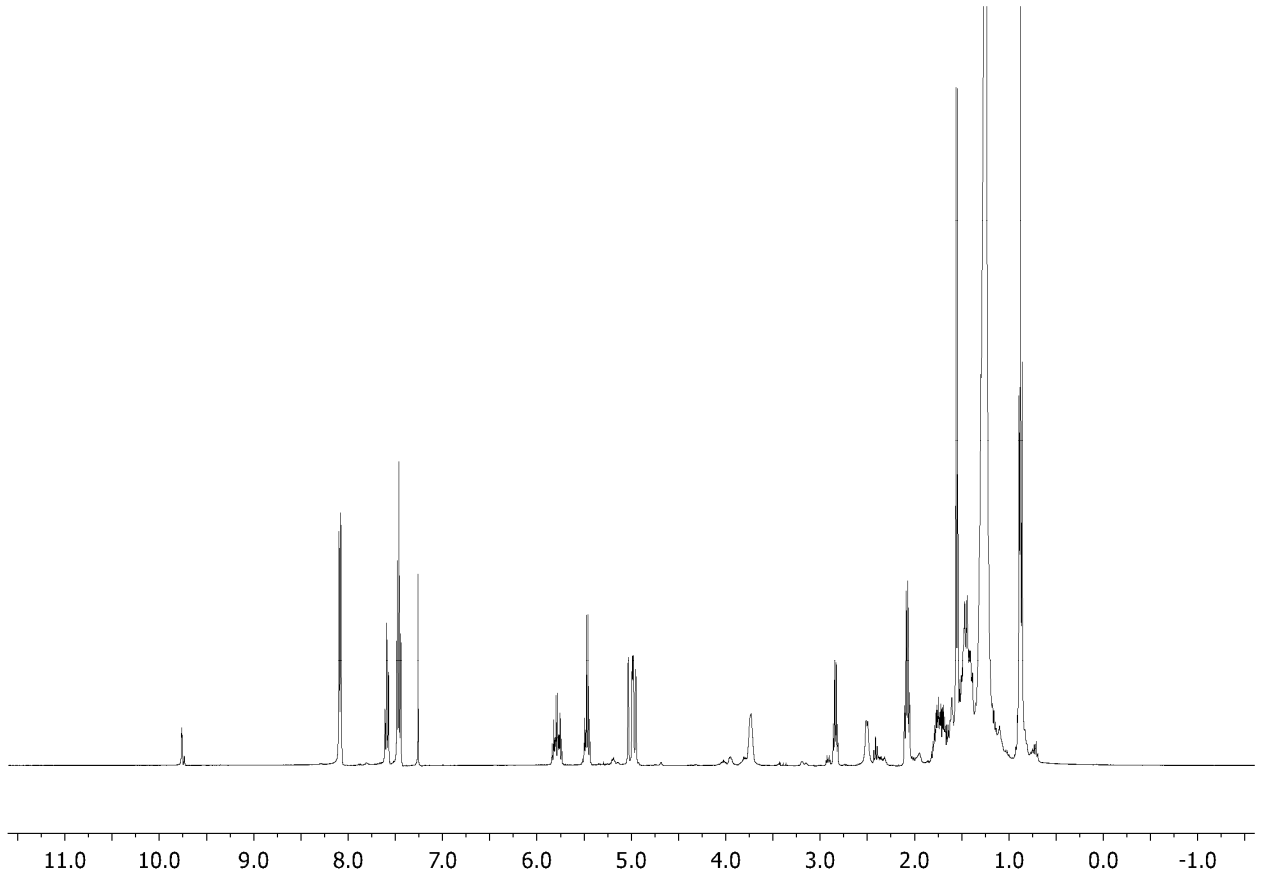
^{1}H NMR



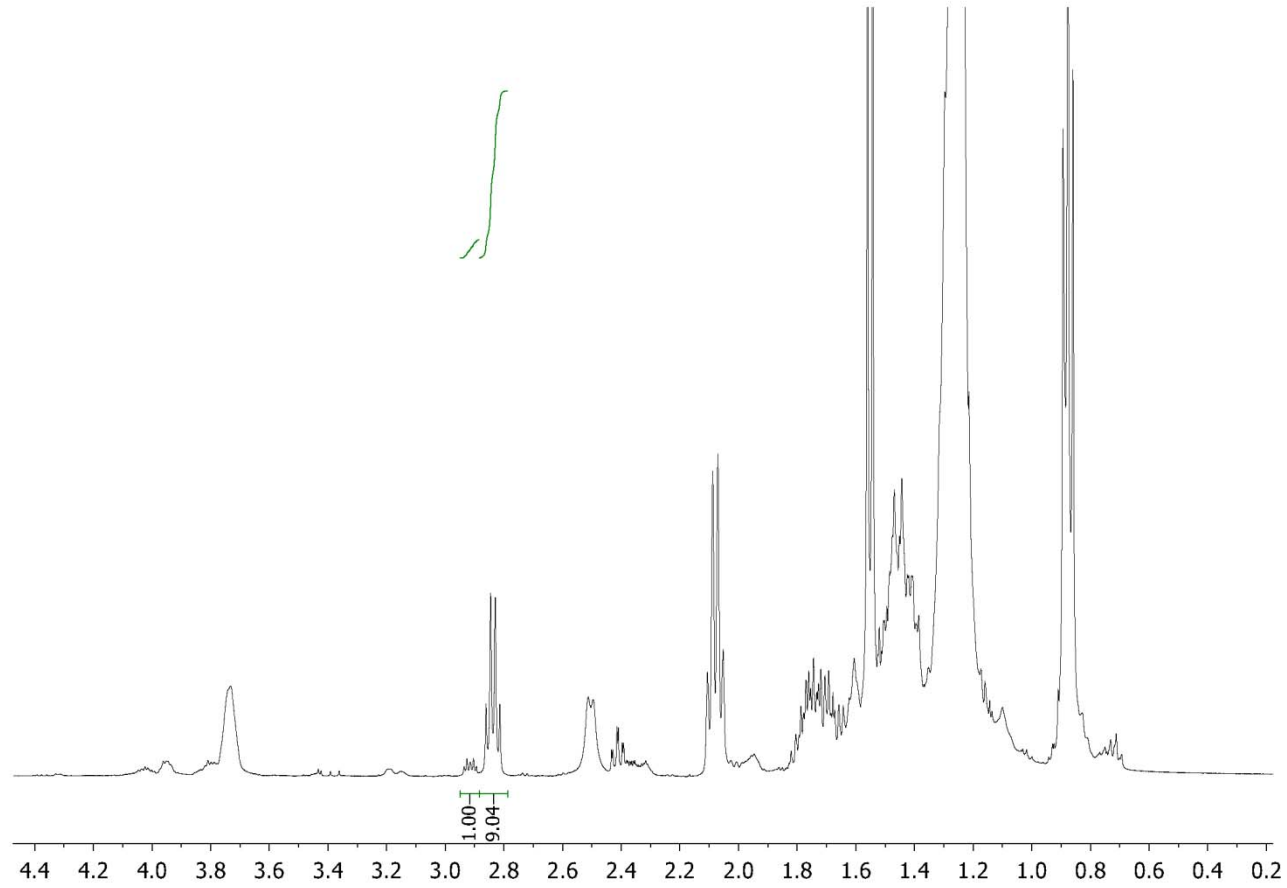
^{13}C NMR



^{1}H NMR spectrum ($CDCl_3$) of crude (2*S*,4*R*,5*R*)-5-Hydroxy-3-oxo-4-(pent-4-enyl)eicosan-2-yl benzoate (12) plus diastereoisomer, before recrystallization

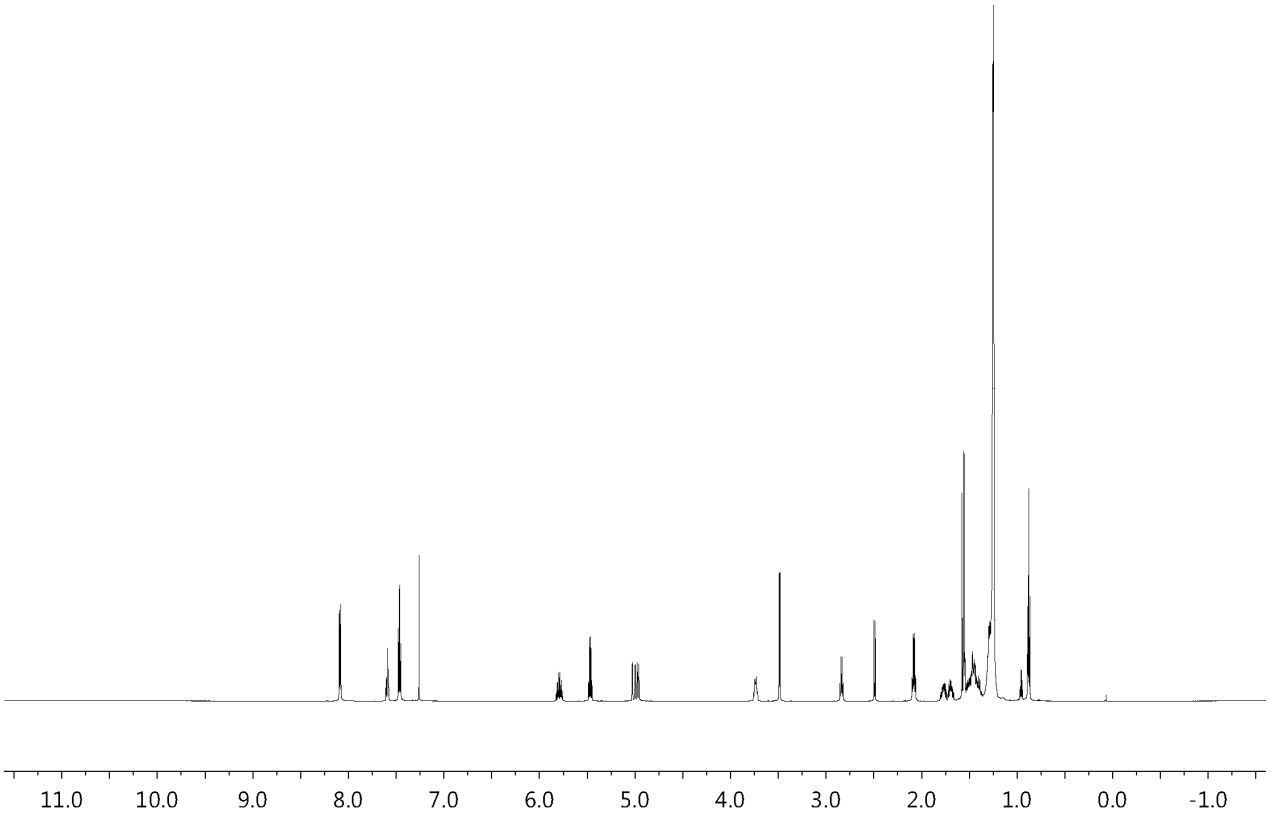


Expansion

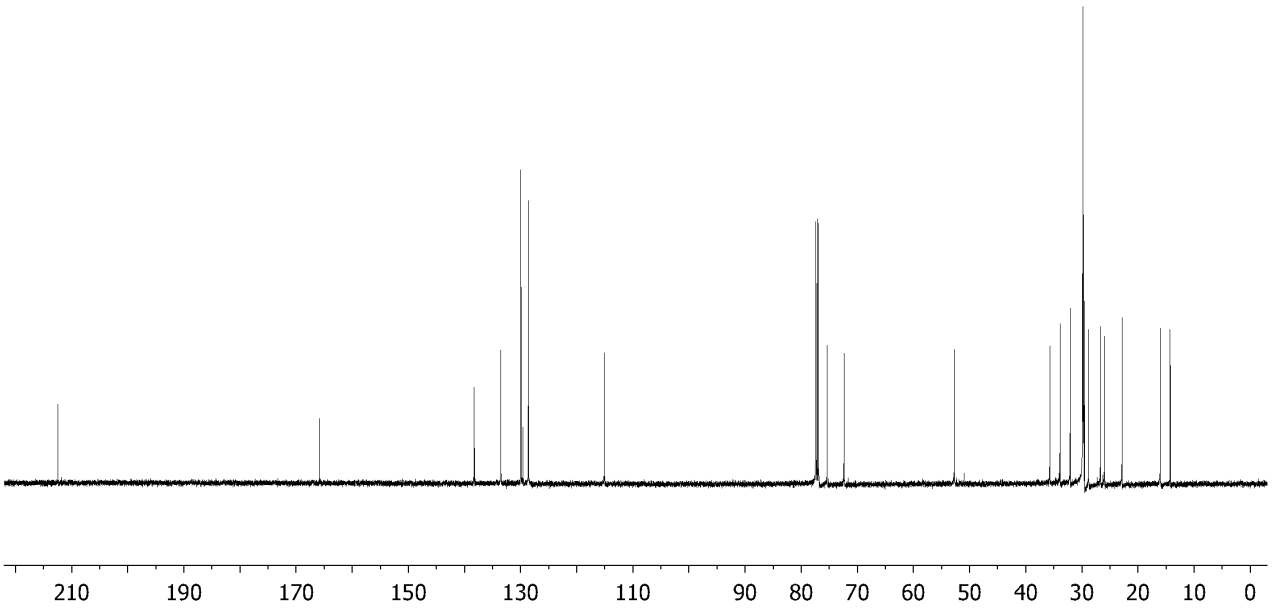


(2*S*,4*R*,5*R*)-5-Hydroxy-3-oxo-4-(pent-4-enyl)eicosan-2-yl benzoate (12)

^{1}H NMR

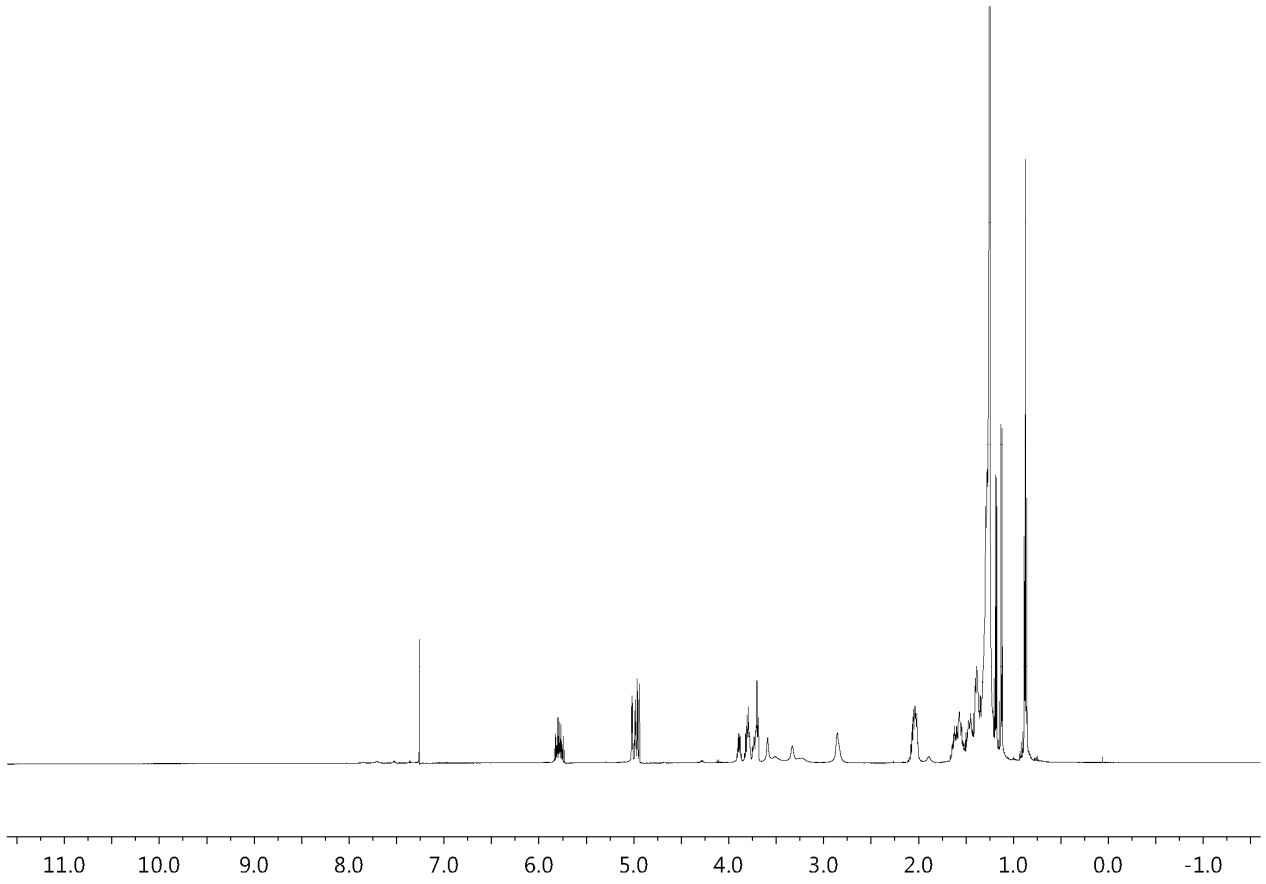


^{13}C NMR

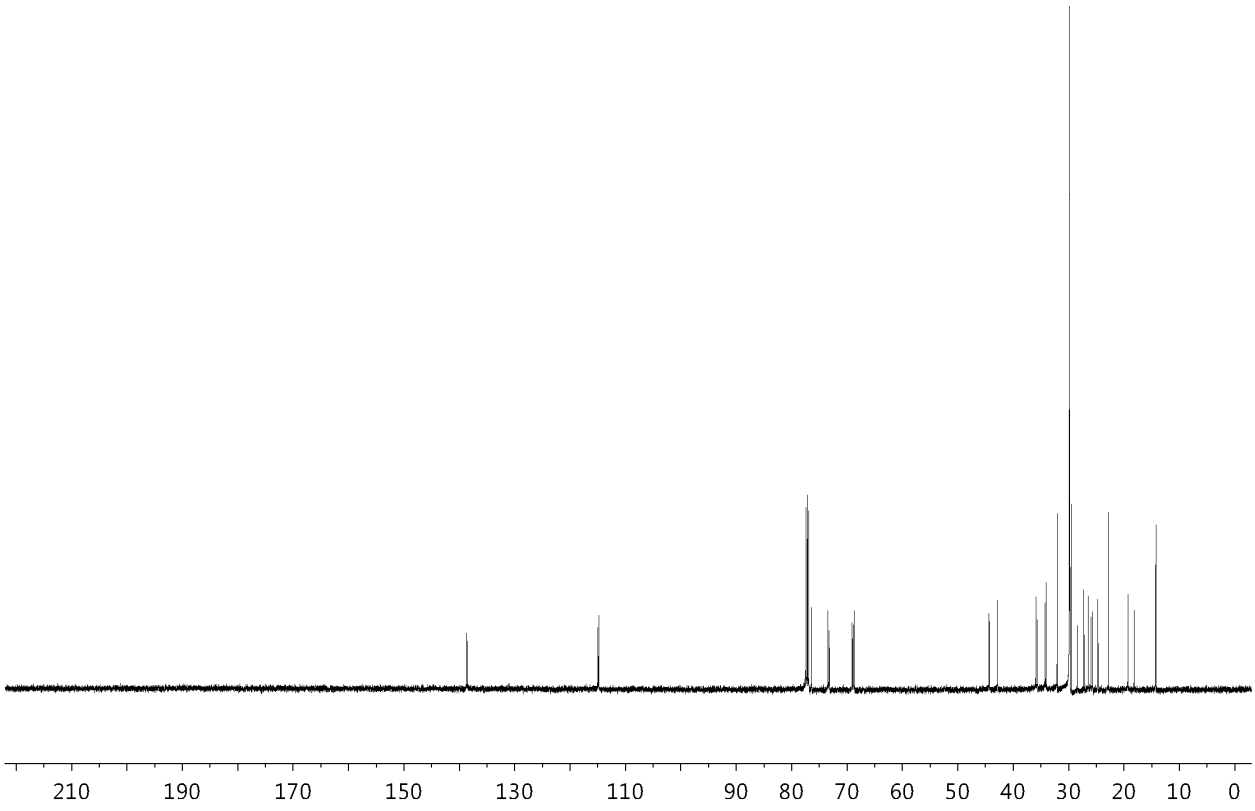


(2S,4*R/S*,5*R*)-4-(Pent-4-en-1-yl)eicosane-2,3,5-triol (13)

^{1}H NMR

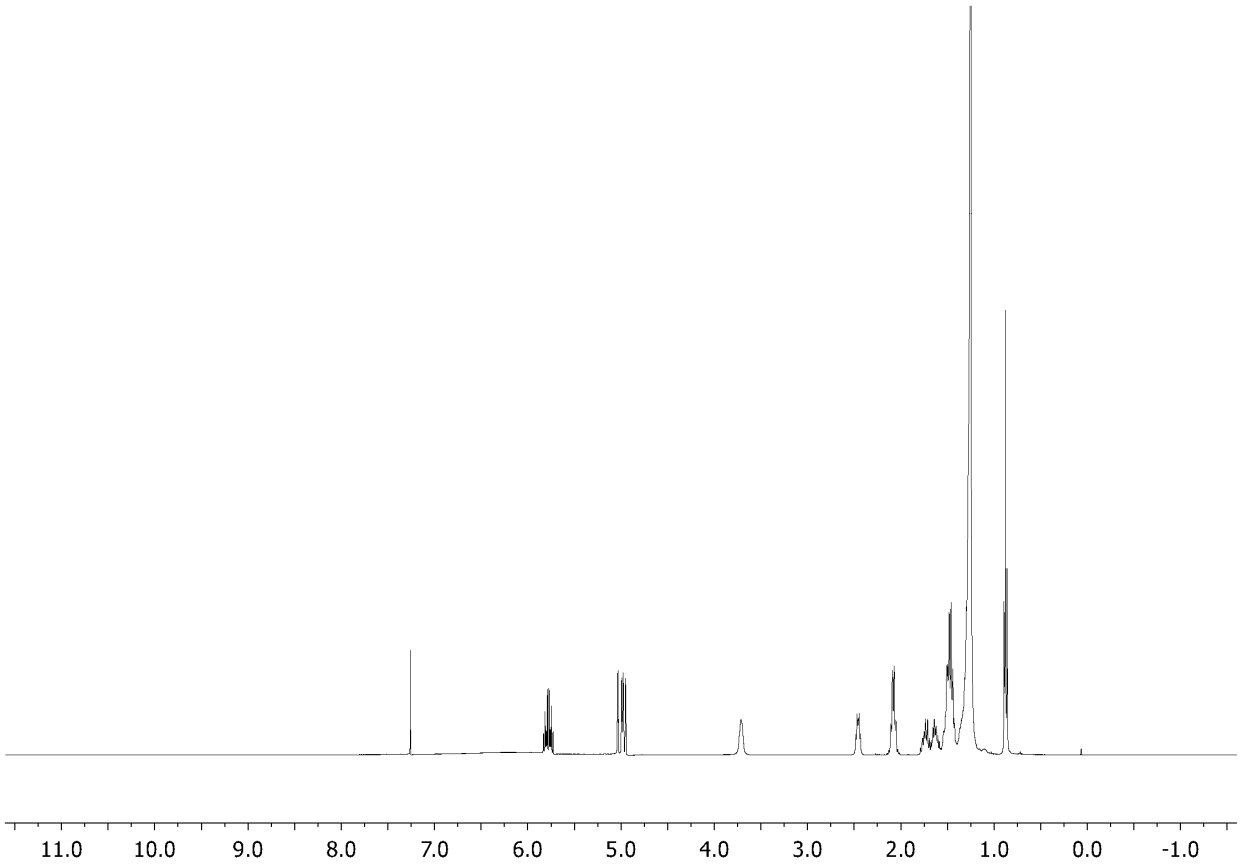


^{13}C NMR

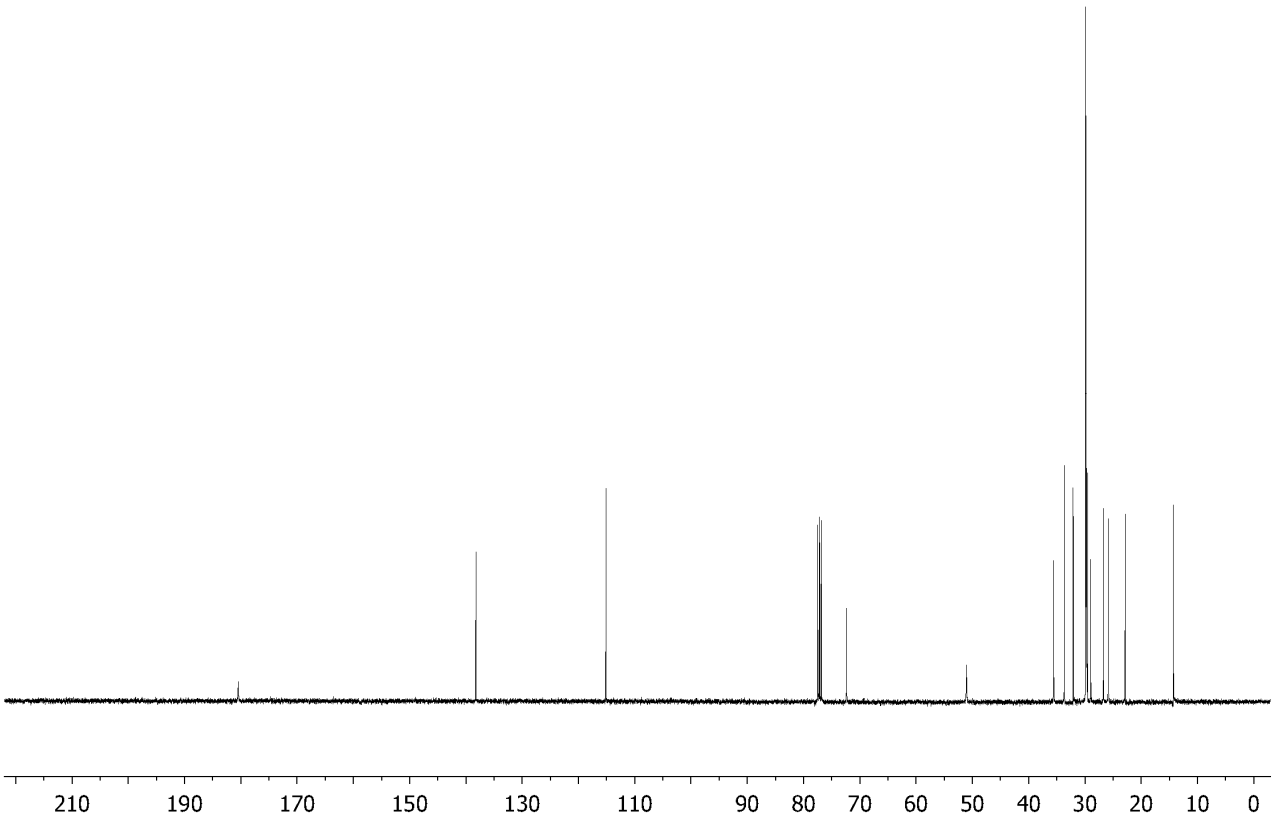


(2*R*,3*R*)-3-Hydroxy-2-(pent-4-en-1-yl)octadecanoic acid (15)

^{1}H NMR

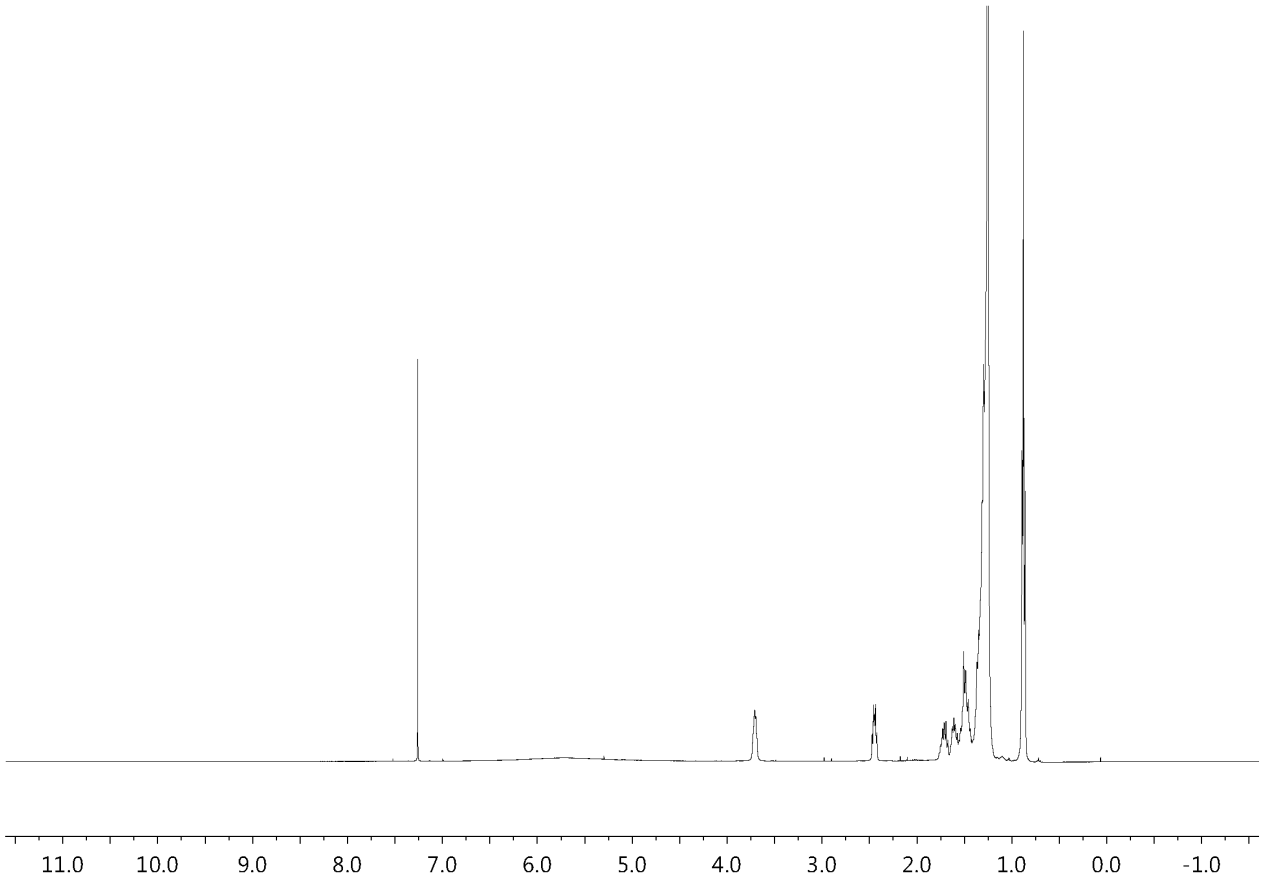


^{13}C NMR

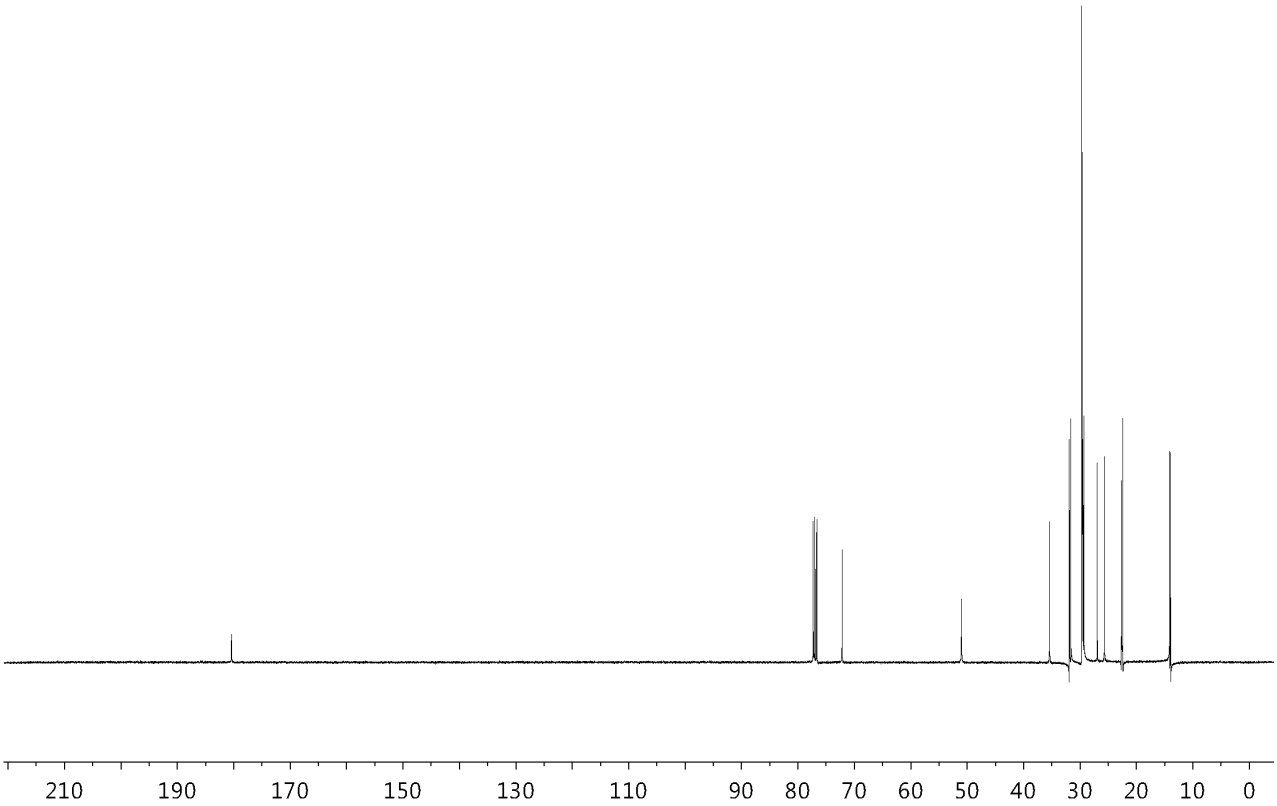


(2*R*,3*R*)-3-Hydroxy-2-pentyloctadecanoic acid (16)

^{1}H NMR

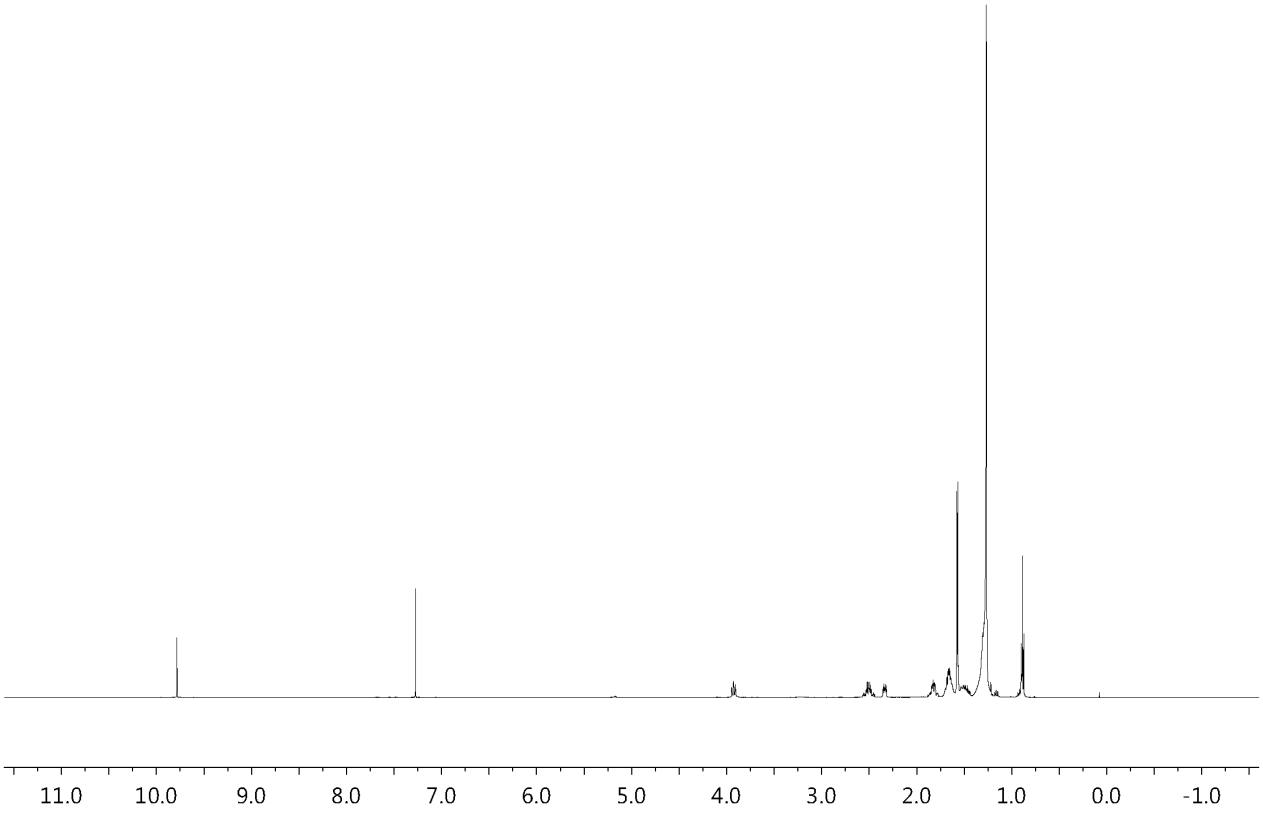


^{13}C NMR

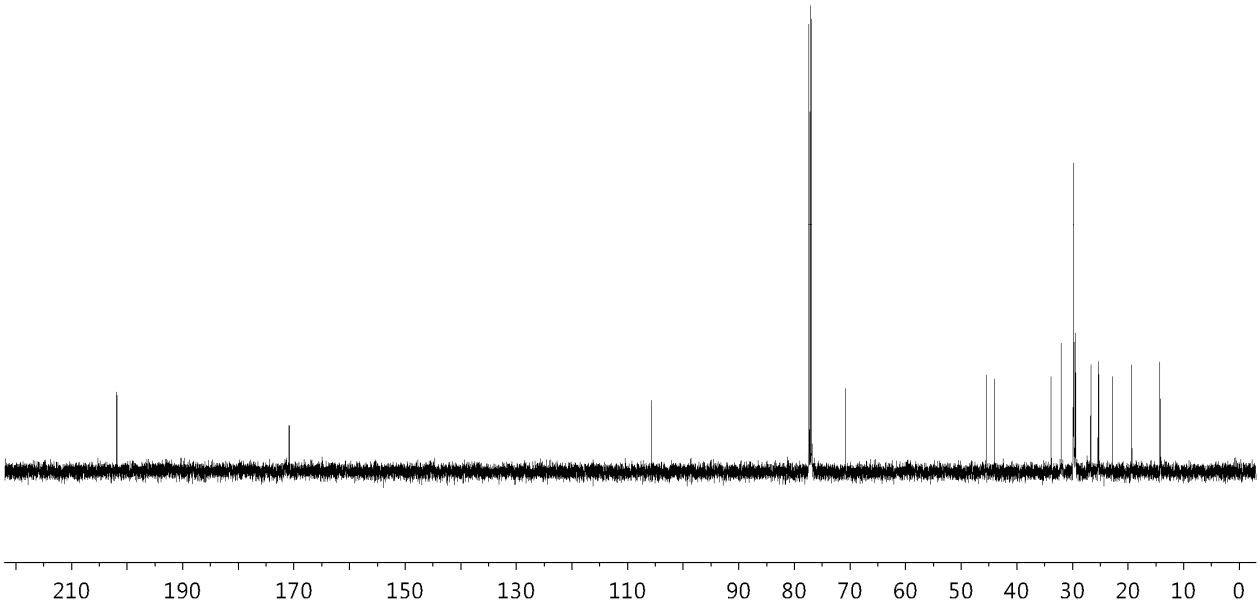


4-((5*R*,6*R*)-2,2-Dimethyl-4-oxo-6-pentadecyl-1,3-dioxan-5-yl)butanal (17)

^{1}H NMR

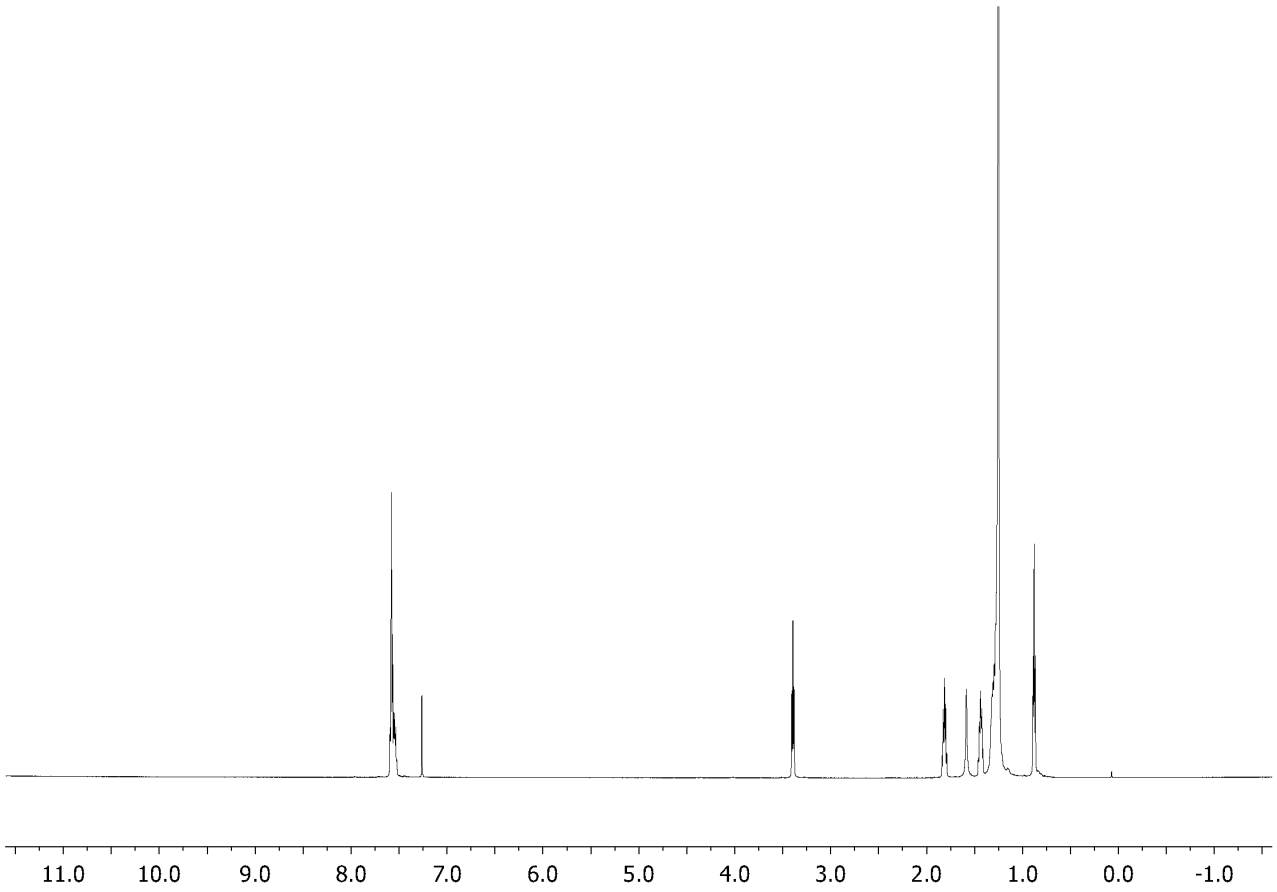


^{13}C NMR

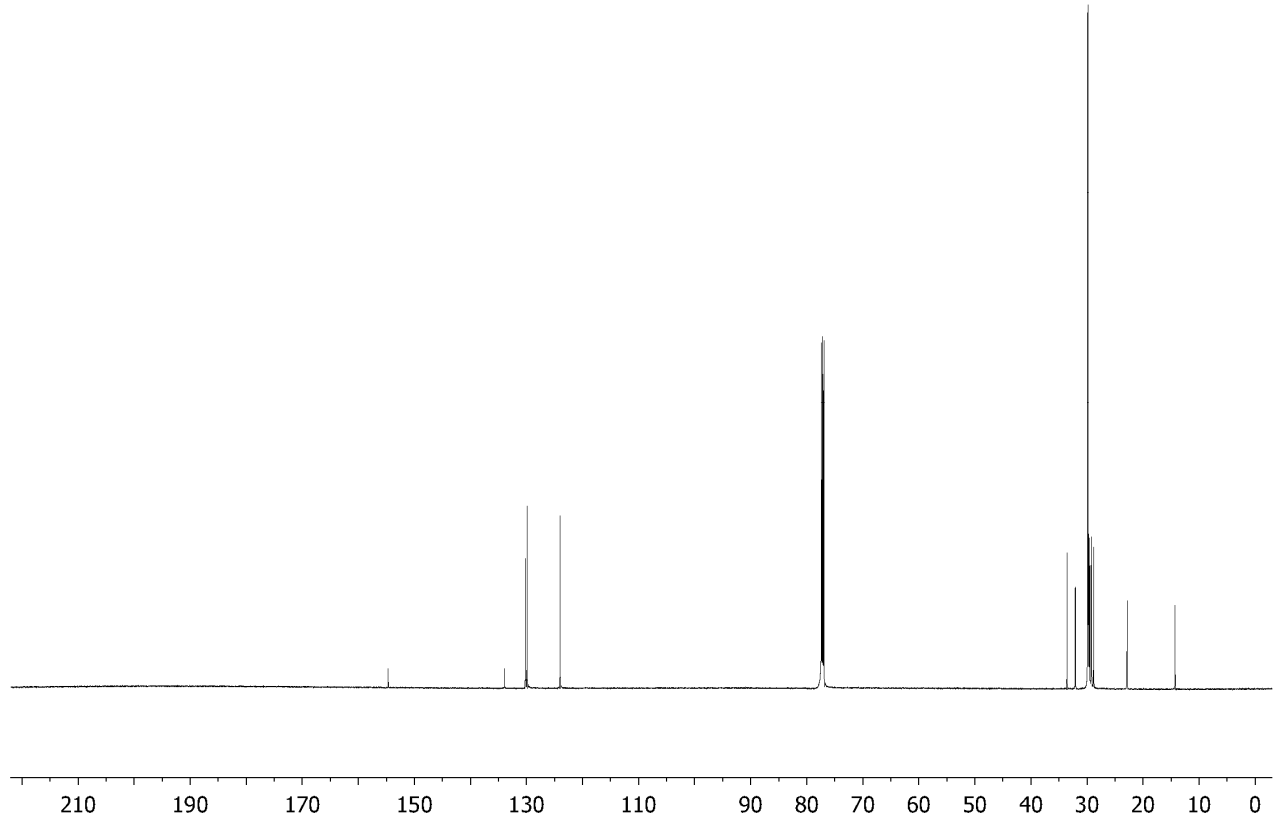


5-(Nonadecylthio)-1-phenyl-1*H*-tetrazole (18)

^{1}H NMR

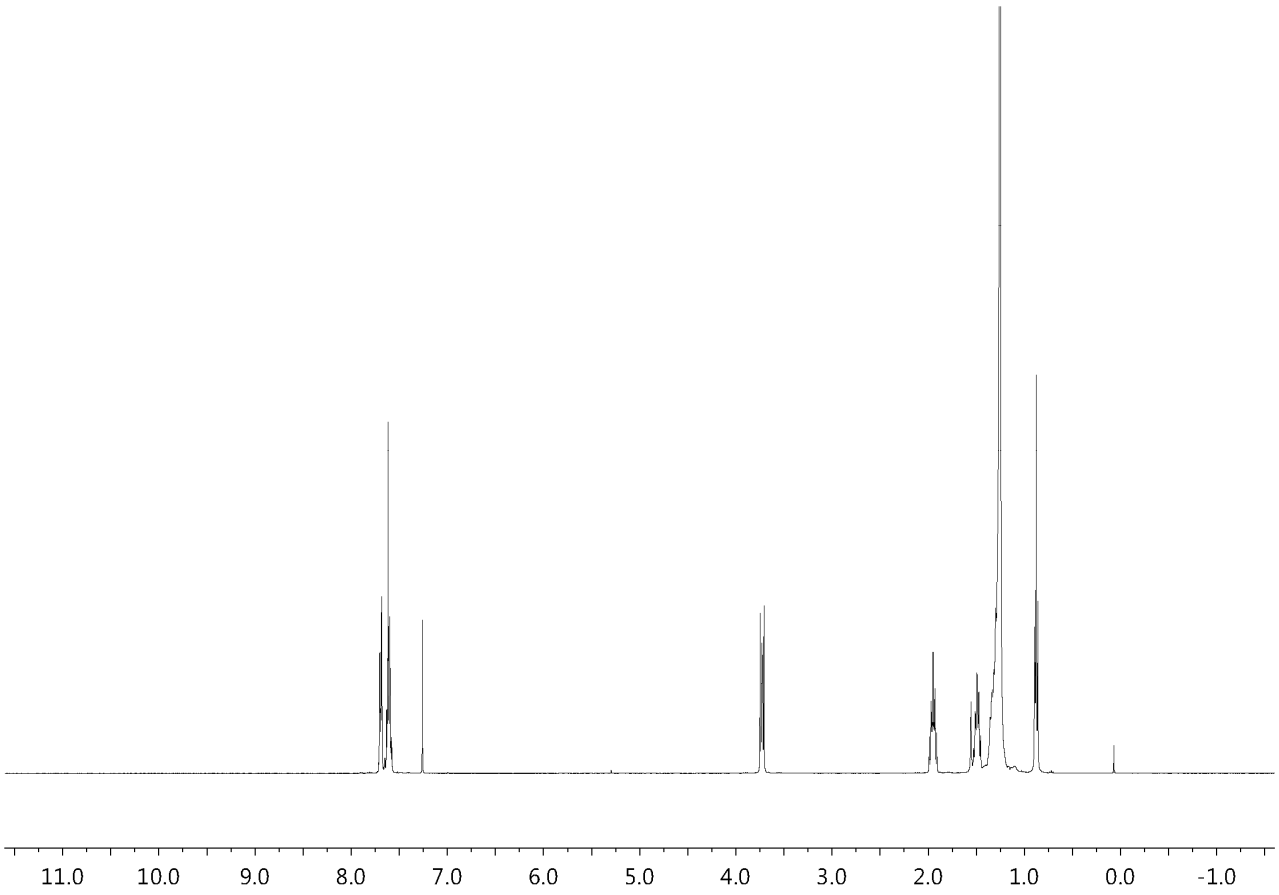


^{13}C NMR

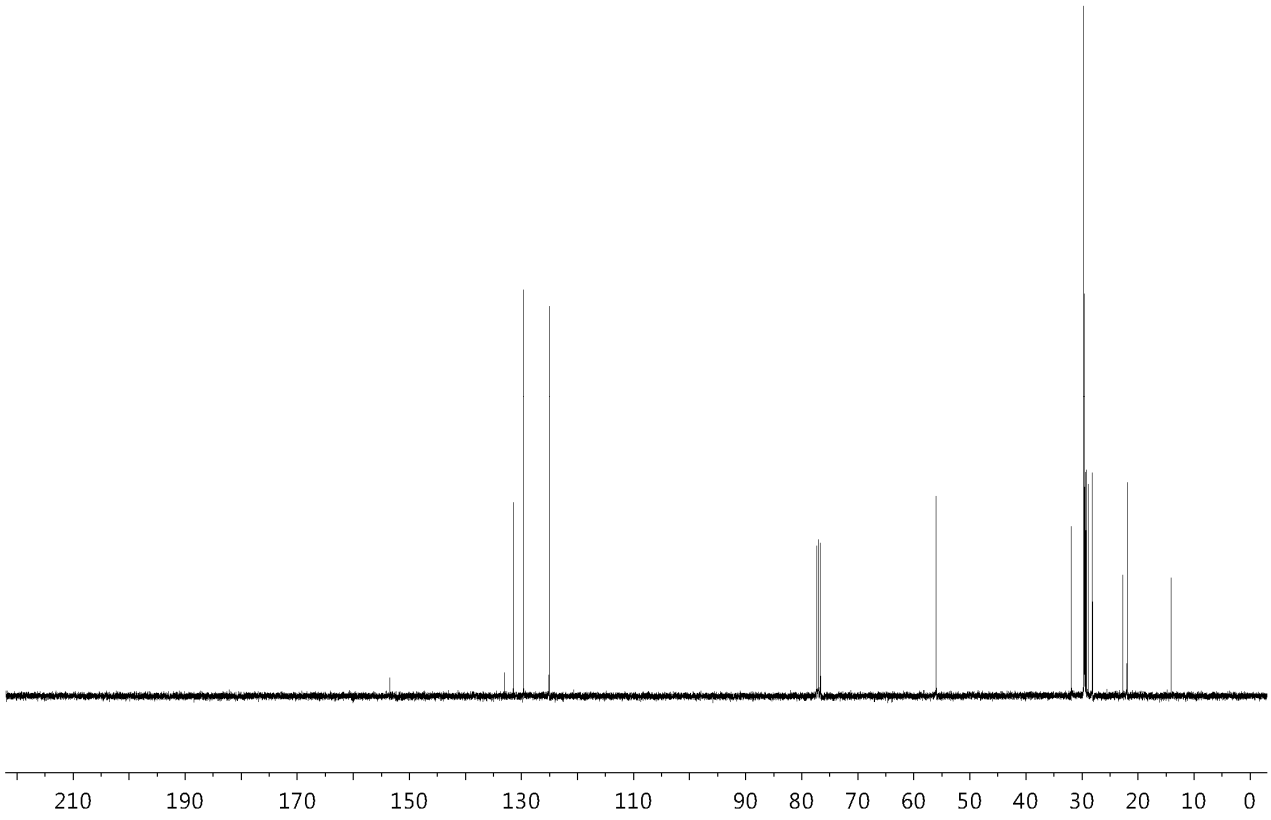


5-(Nonadecylsulfonyl)-1-phenyl-1*H*-tetrazole (20)

^{1}H NMR

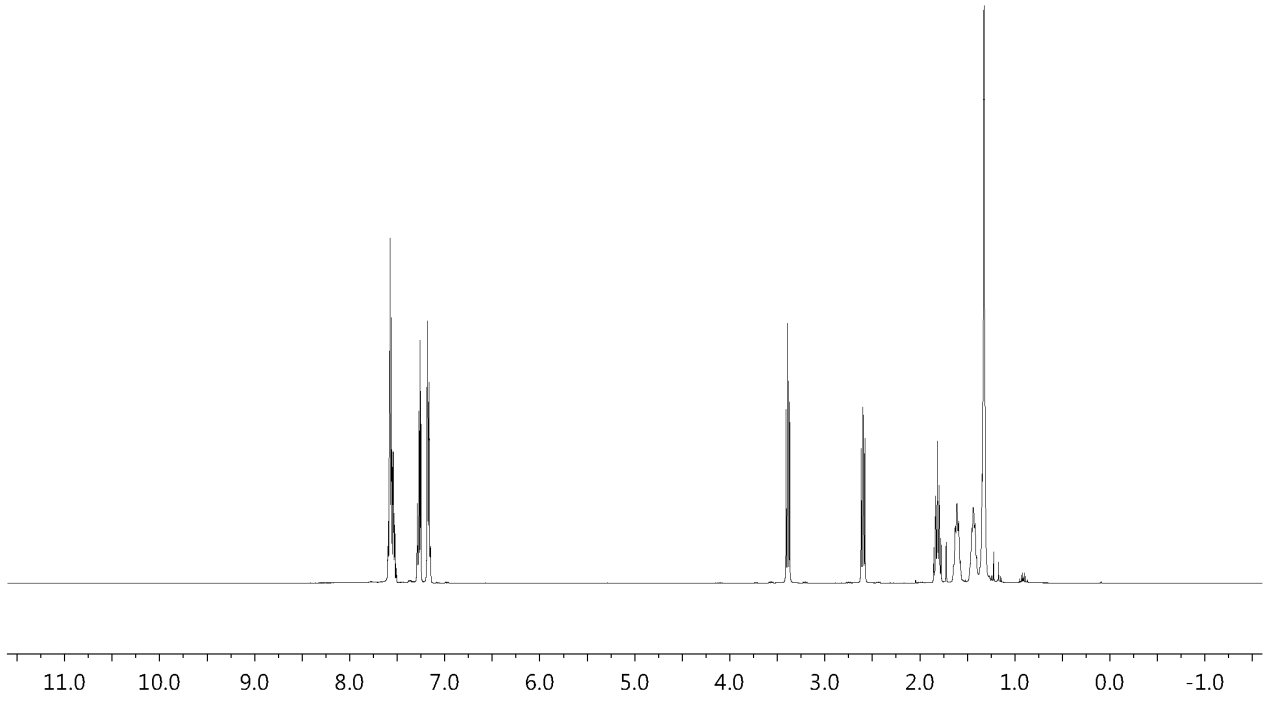


^{13}C NMR

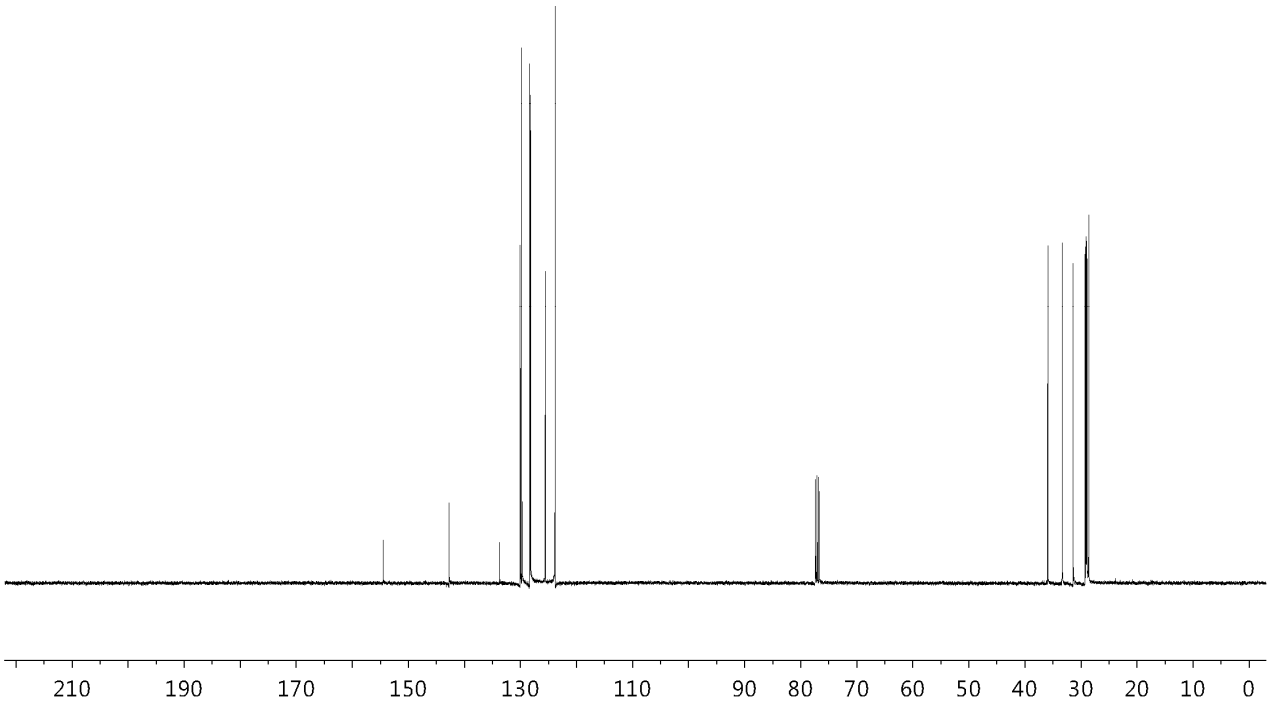


1-Phenyl-5-((8-phenyloctyl)thio)-1*H*-tetrazole (19)

^{1}H NMR

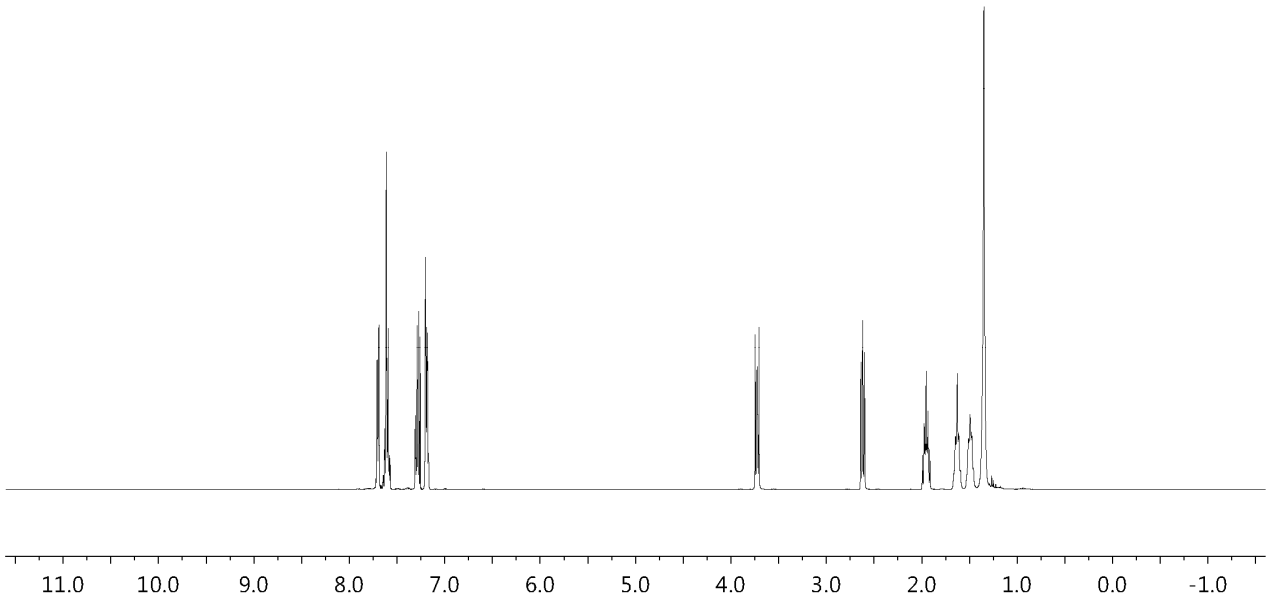


^{13}C NMR

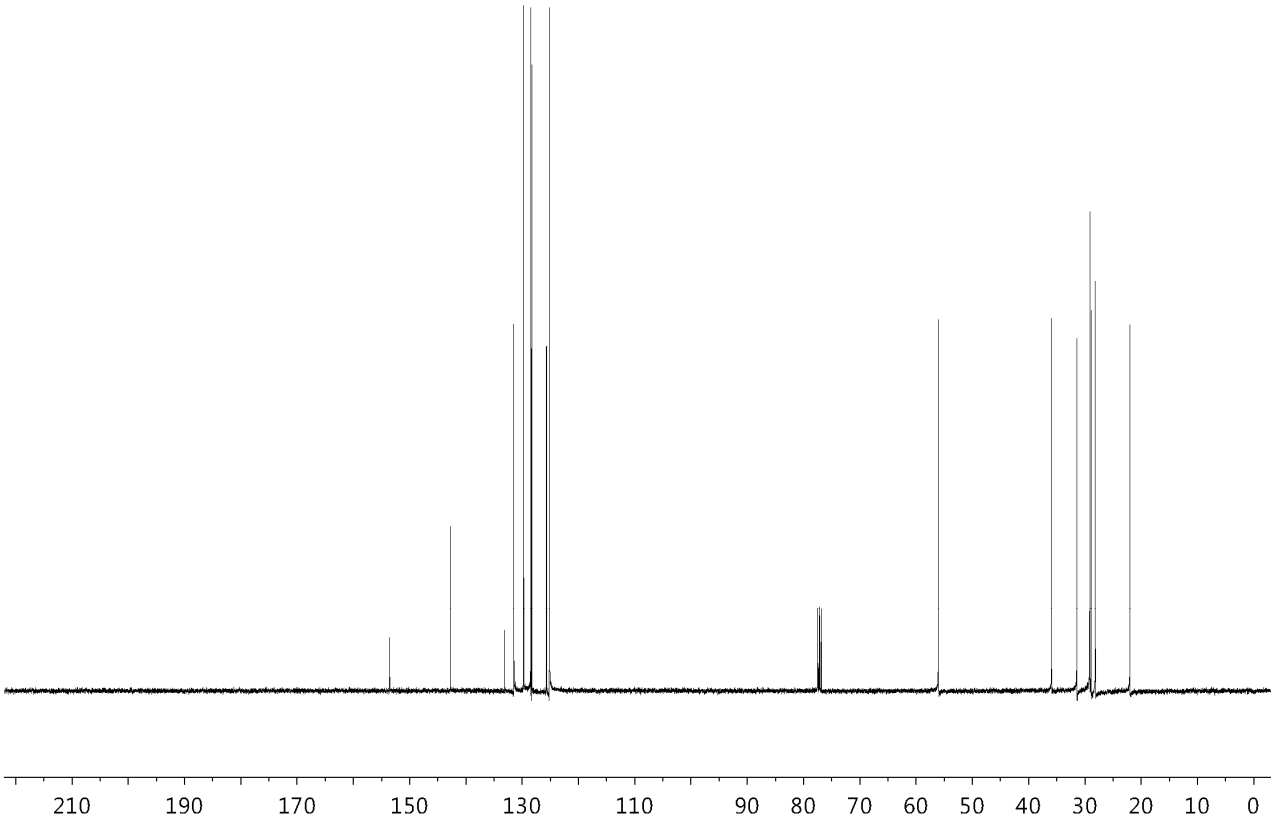


1-Phenyl-5-((8-phenyloctyl)sulfonyl)-1*H*-tetrazole (21)

^{1}H NMR

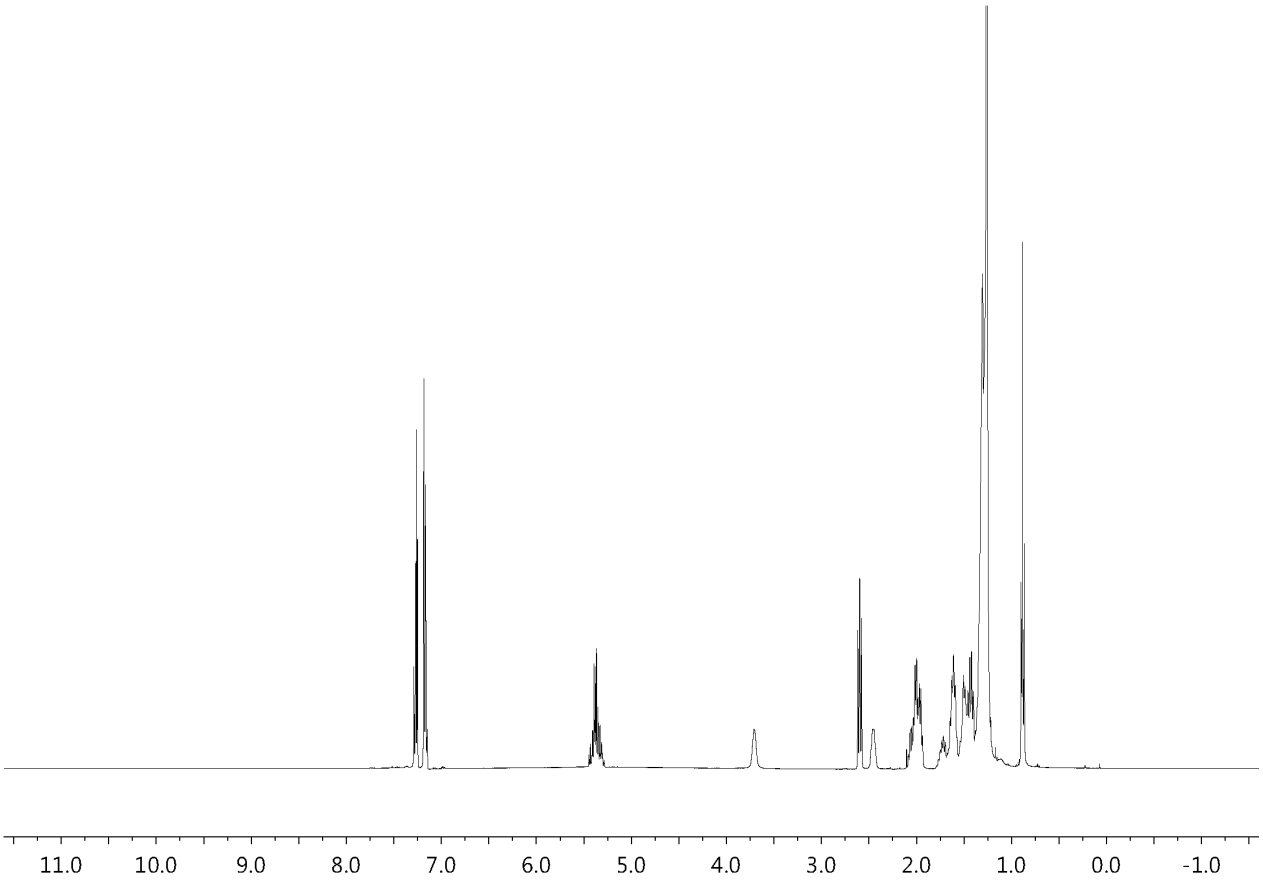


^{13}C NMR

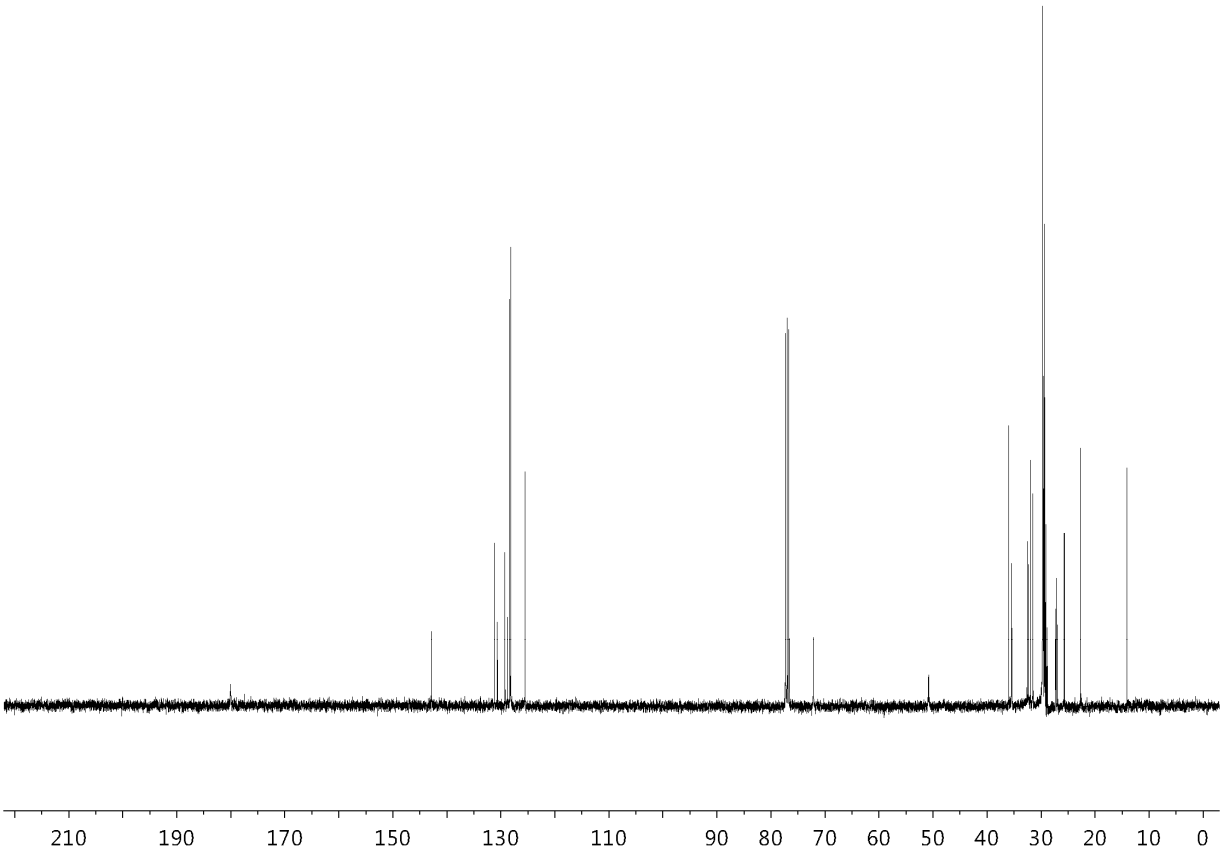


(2*R*,3*R*)-3-Hydroxy-2-(12-phenyldodec-4-en-1-yl)octadecanoic acid (23)

^{1}H NMR

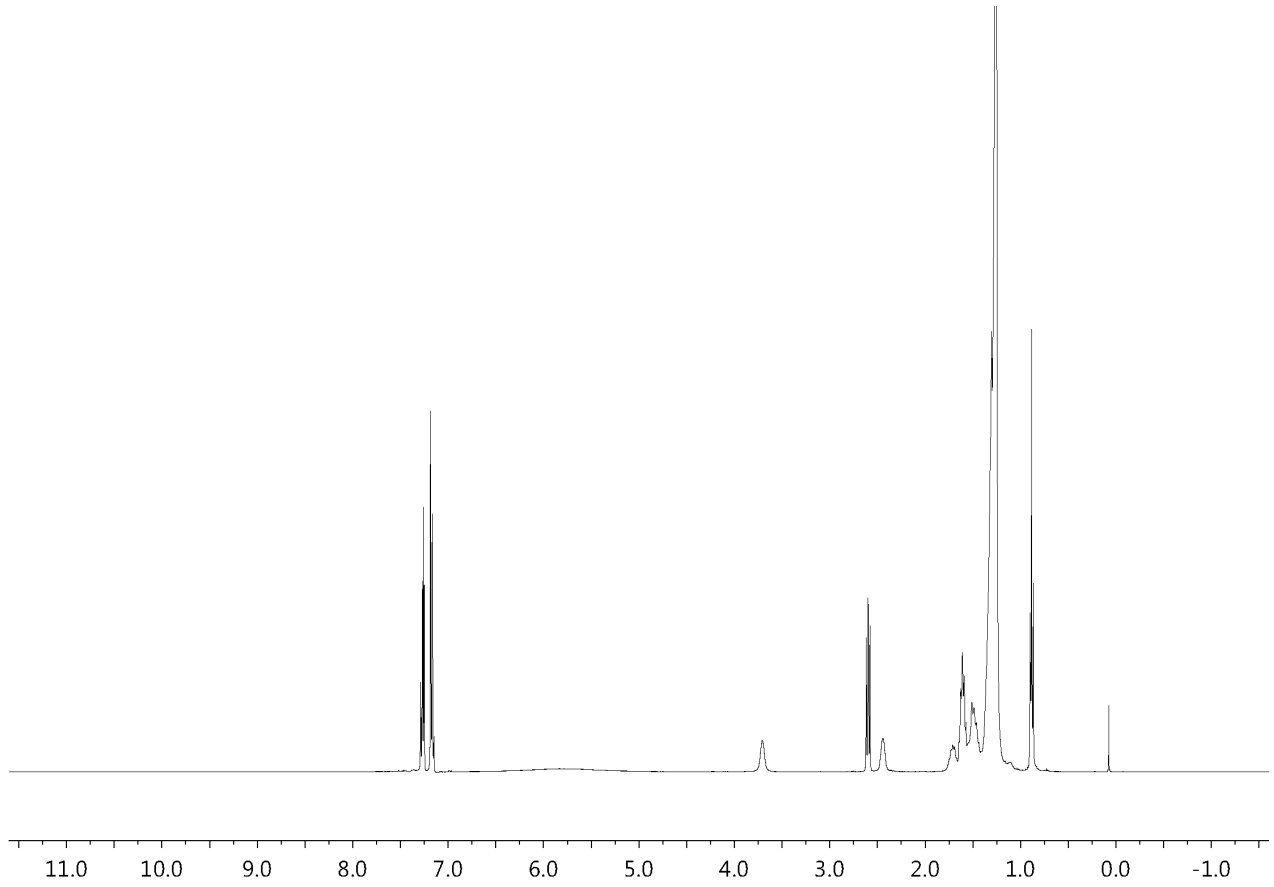


^{13}C NMR

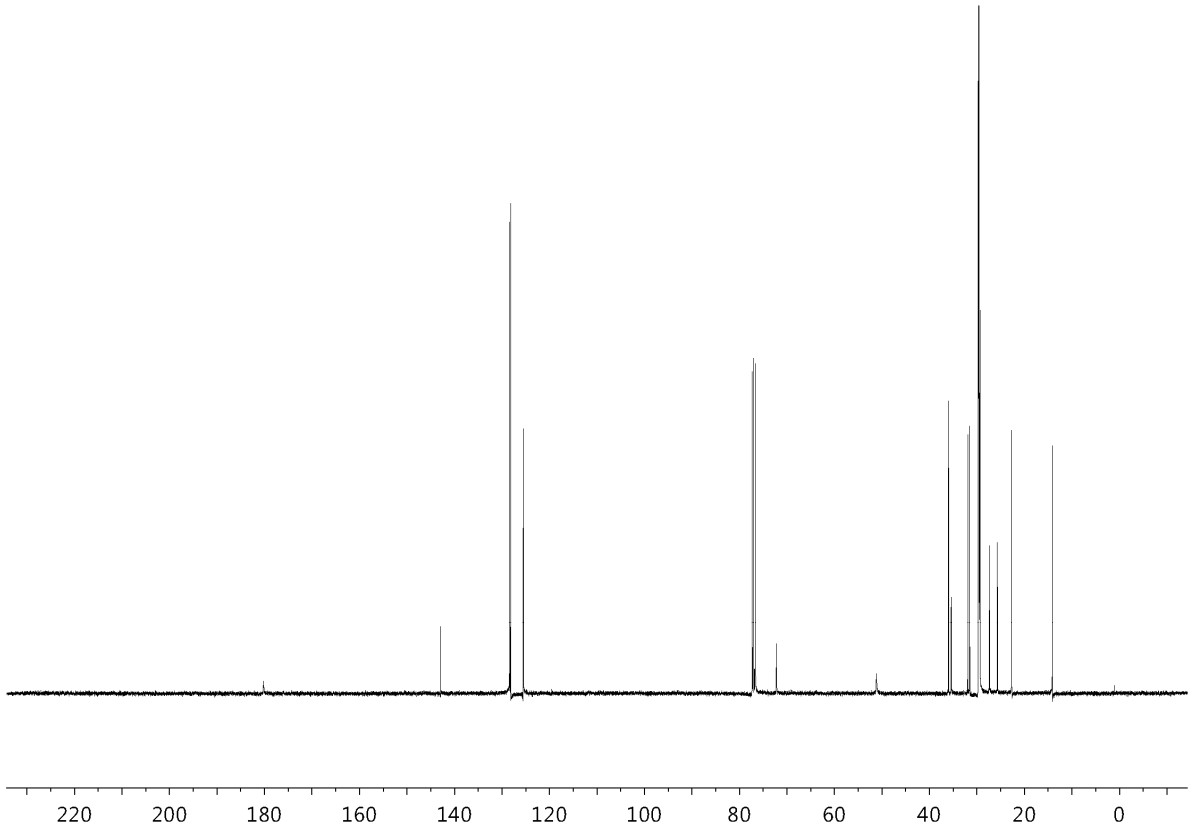


(2*R*,3*R*)-3-Hydroxy-2-(12-phenyldodecyl)octadecanoic acid (25)

^{1}H NMR

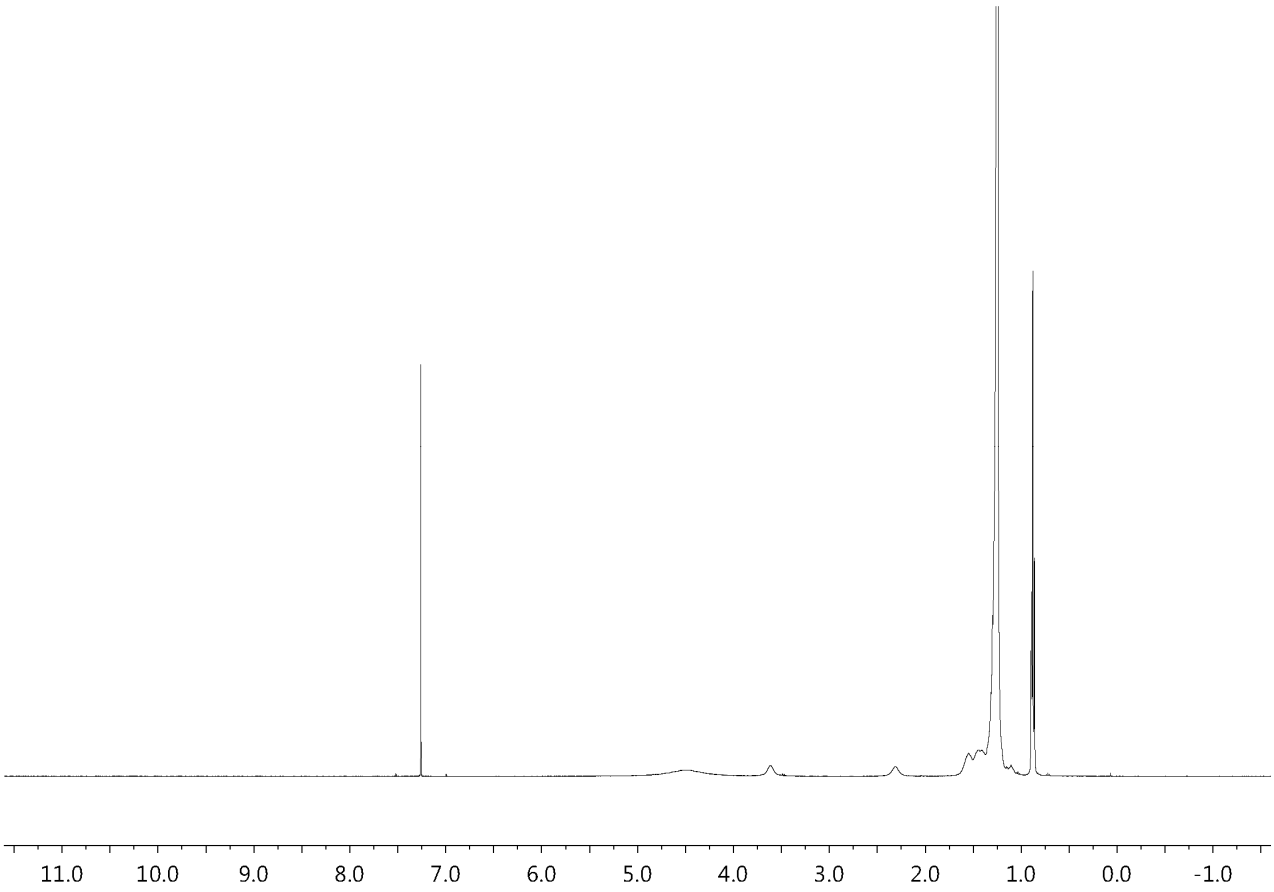


^{13}C NMR

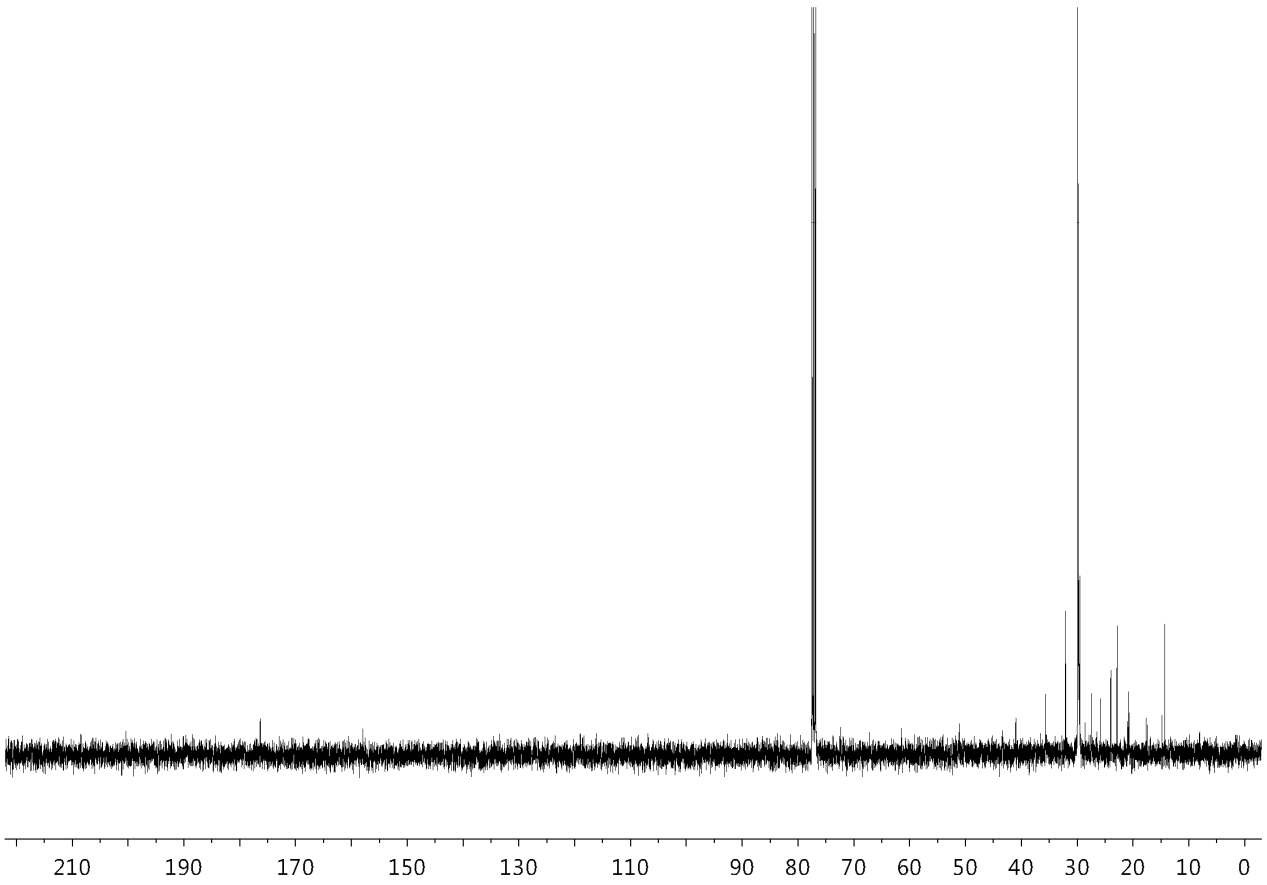


(2*R*,3*R*)-3-Hydroxy-2-(tricosanyl)octadecanoic acid (24)

^{1}H NMR

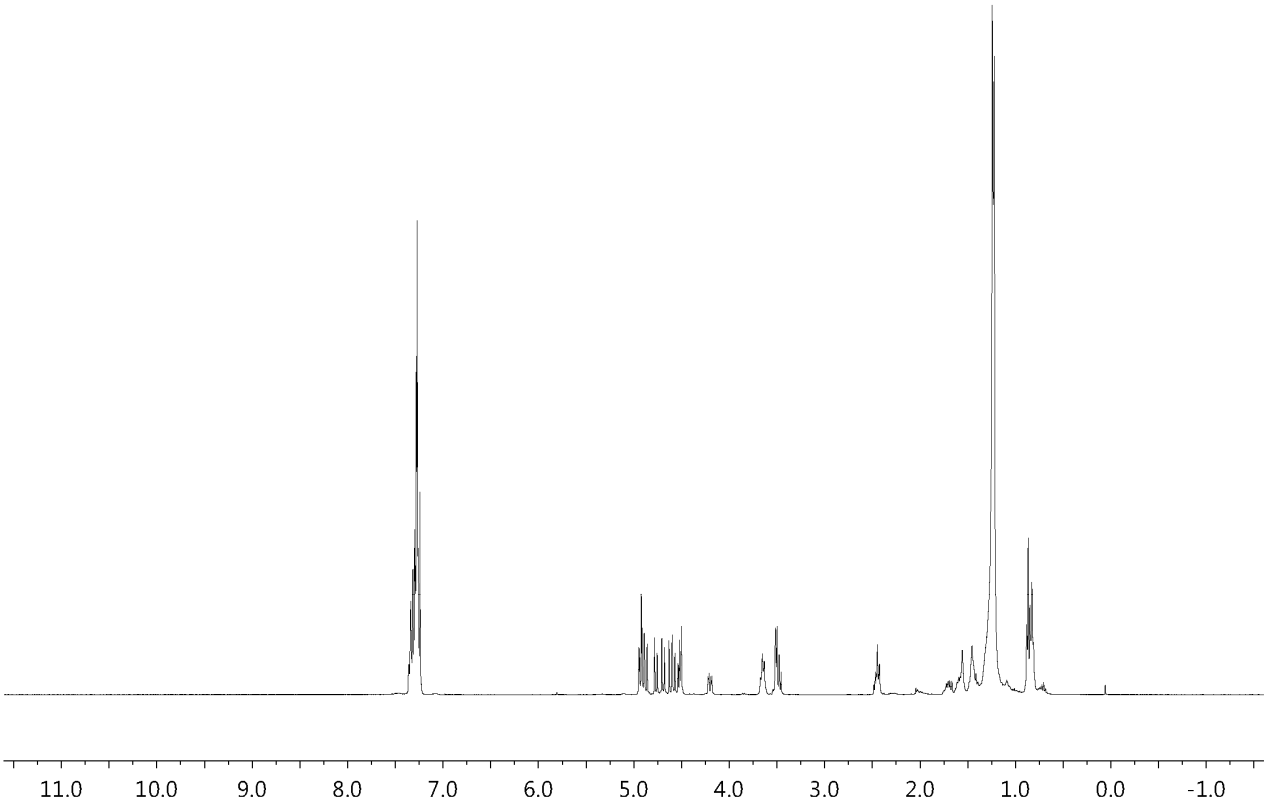


^{13}C NMR

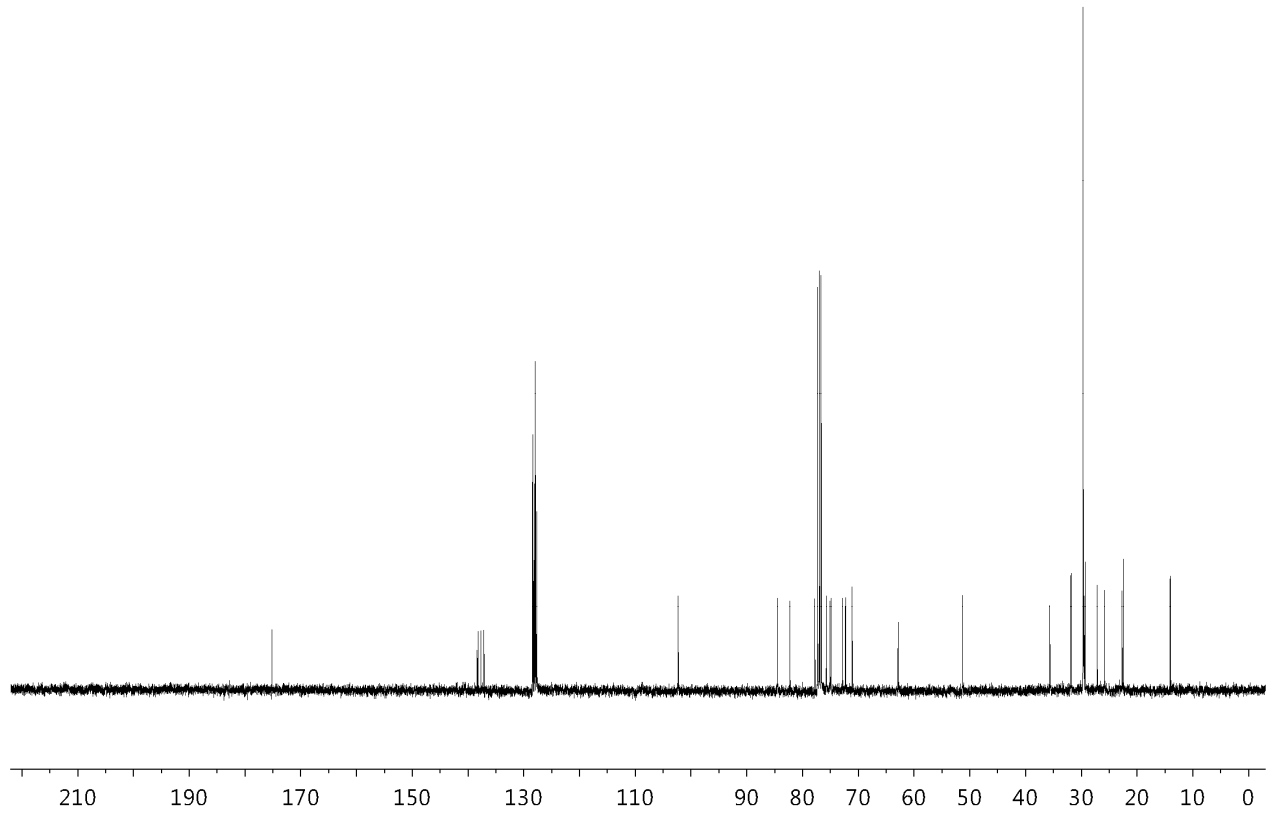


Benzyl 2,3,4-tri-*O*-benzyl-6-*O*-((2*R*,3*R*)-3-hydroxy-2-(pentyl)octadecanoyl)-β-D-glucopyranoside (28)

^{1}H NMR

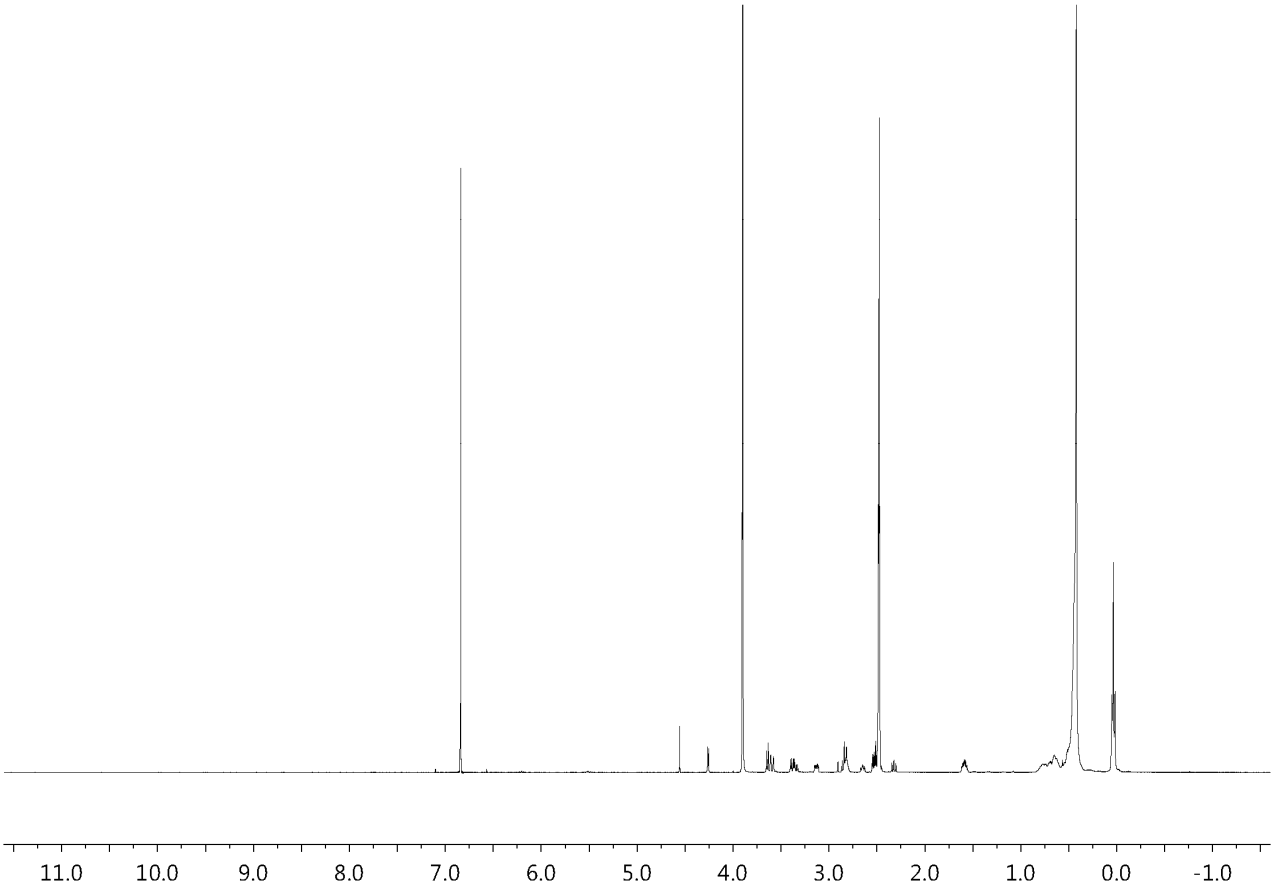


^{13}C NMR

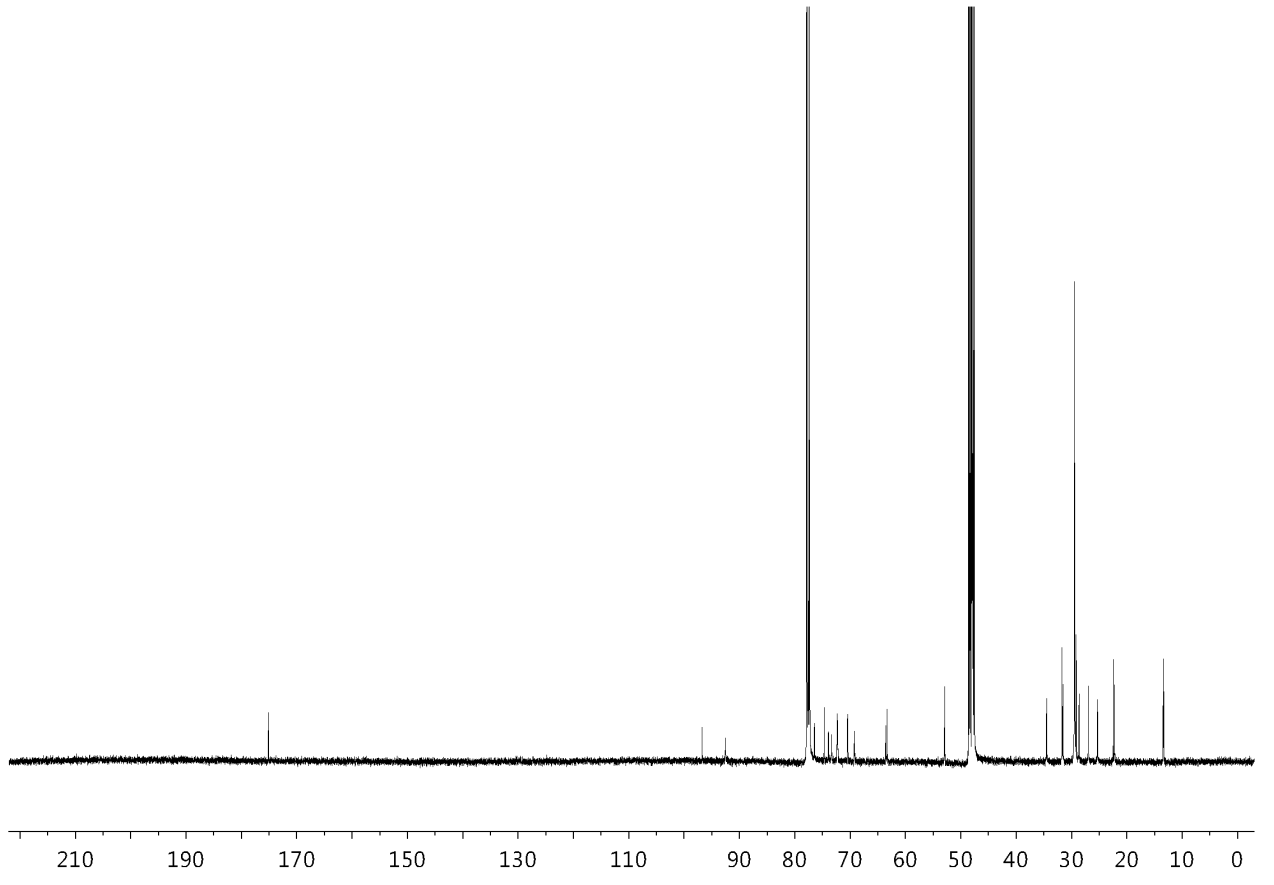


6-*O*-((2*R*,3*R*)-3-Hydroxy-2-(pentyl)octadecanoyl)-D-glucopyranose (32)

^{1}H NMR

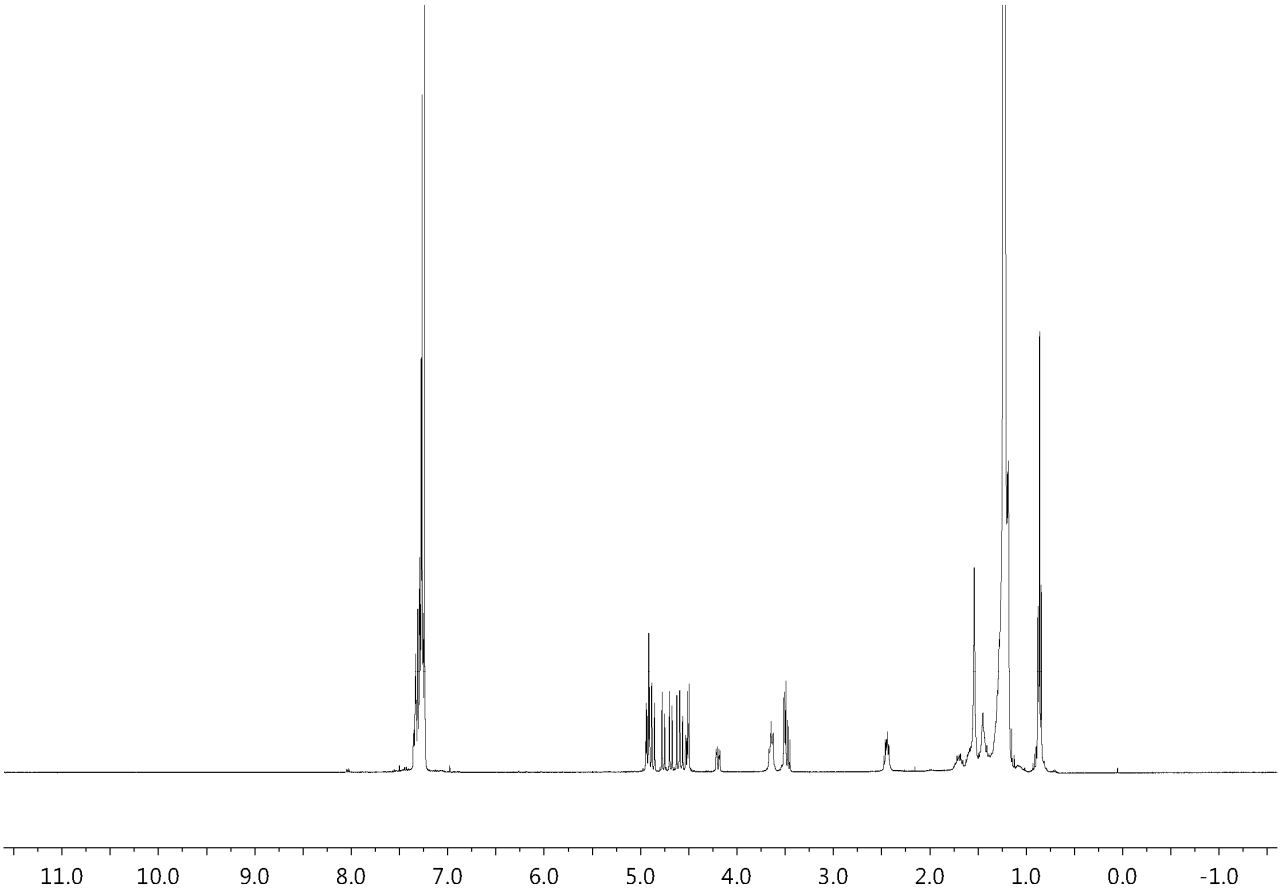


^{13}C NMR

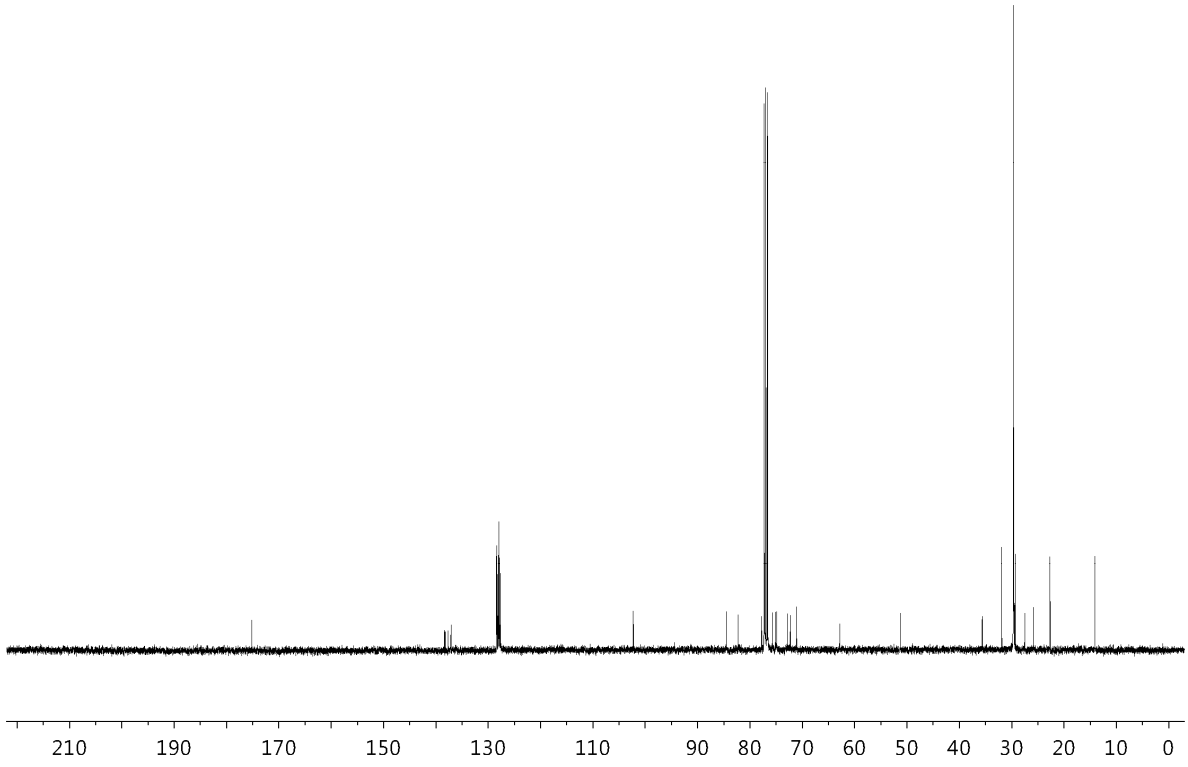


Benzyl 2,3,4-tri-O-benzyl-6-*O*-((2*R*,3*R*)-3-Hydroxy-2-(tricosanyl)octadecanoyl)-β-D-glucopyranoside (29)

^{1}H NMR

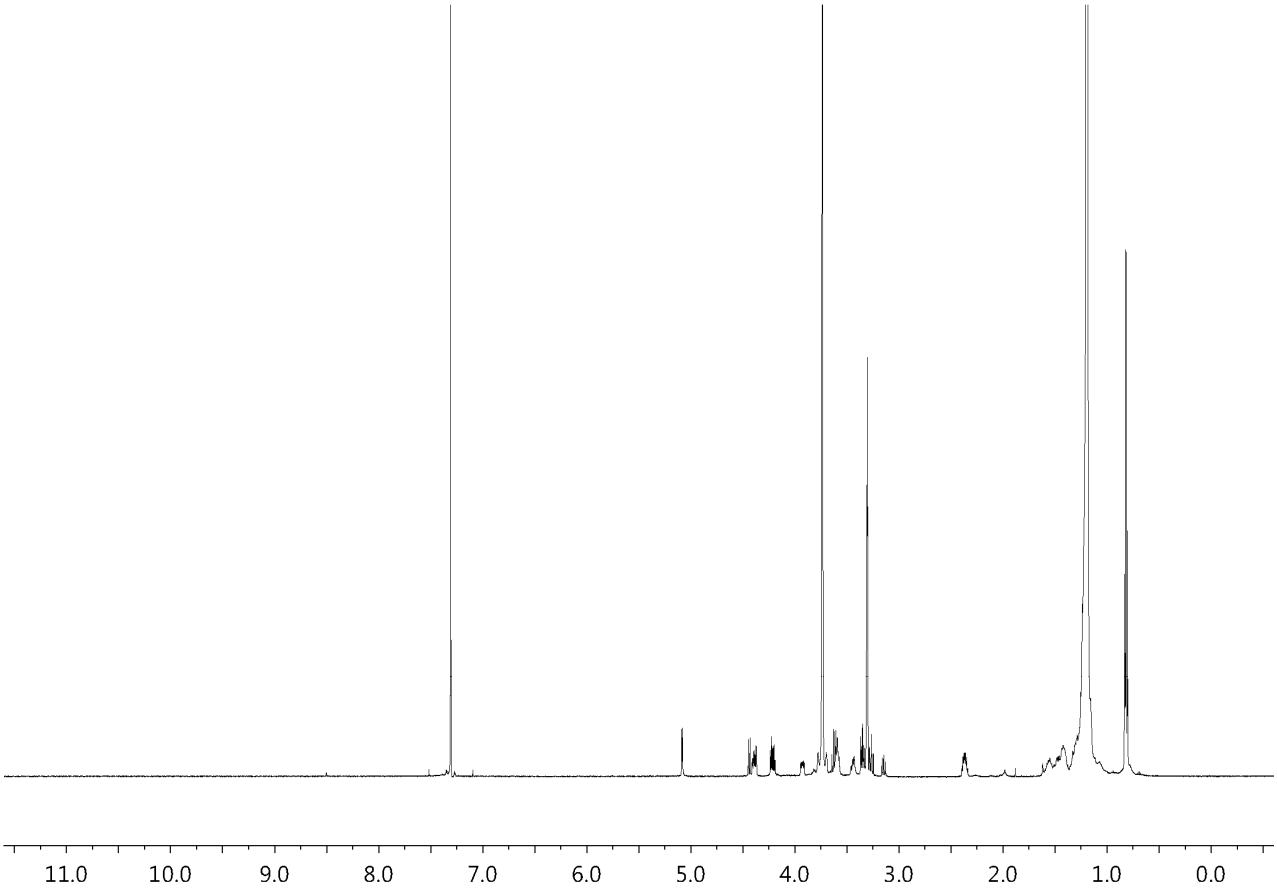


^{13}C NMR

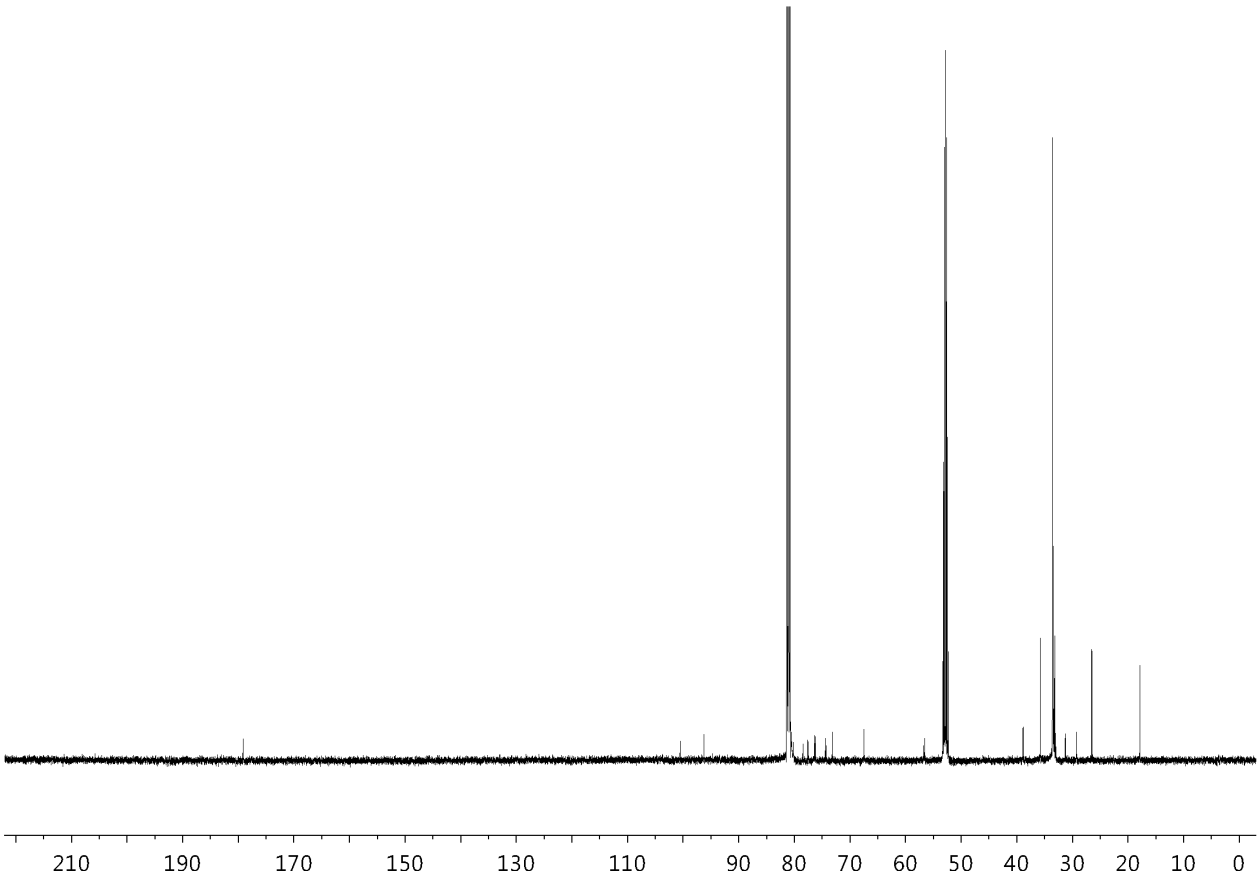


6-*O*-((2*R*,3*R*)-3-Hydroxy-2-(tricosanyl)octadecanoyl)-D-glucopyranose (33)

^{1}H NMR

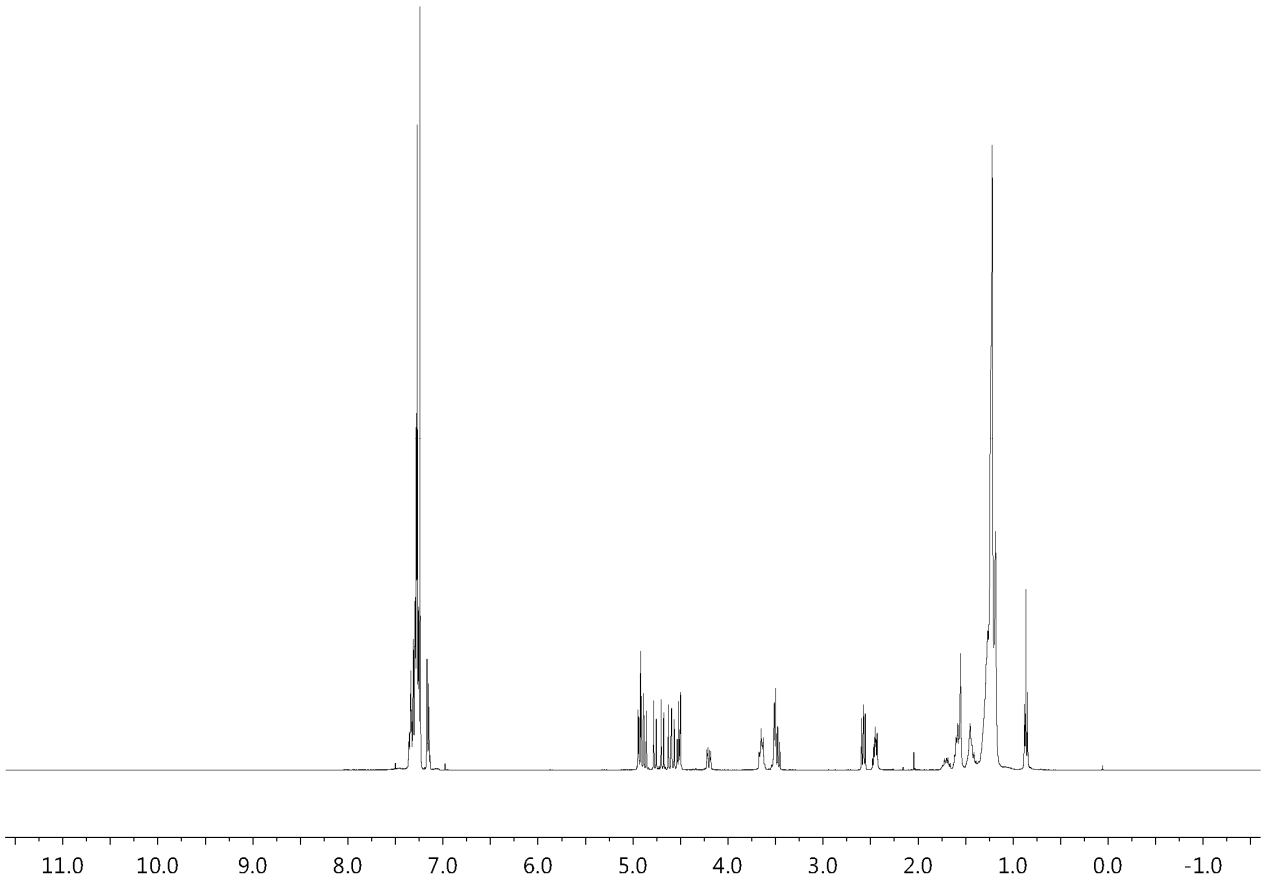


^{13}C NMR

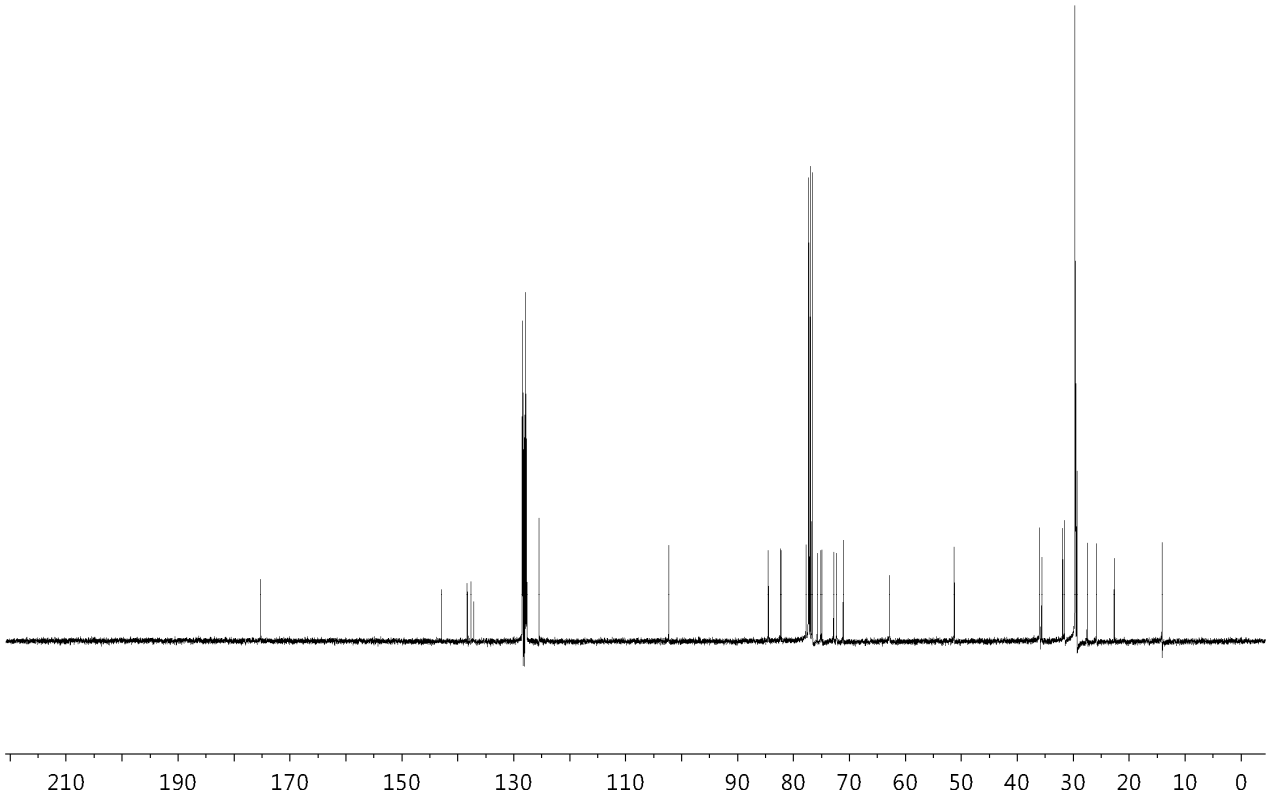


Benzyl 2,3,4-tri-*O*-benzyl-6-*O*-((2*R*,3*R*)-3-hydroxy-2-(12-phenyldodecyl)octadecanoyl)-β-D-glucopyranoside (30)

^{1}H NMR

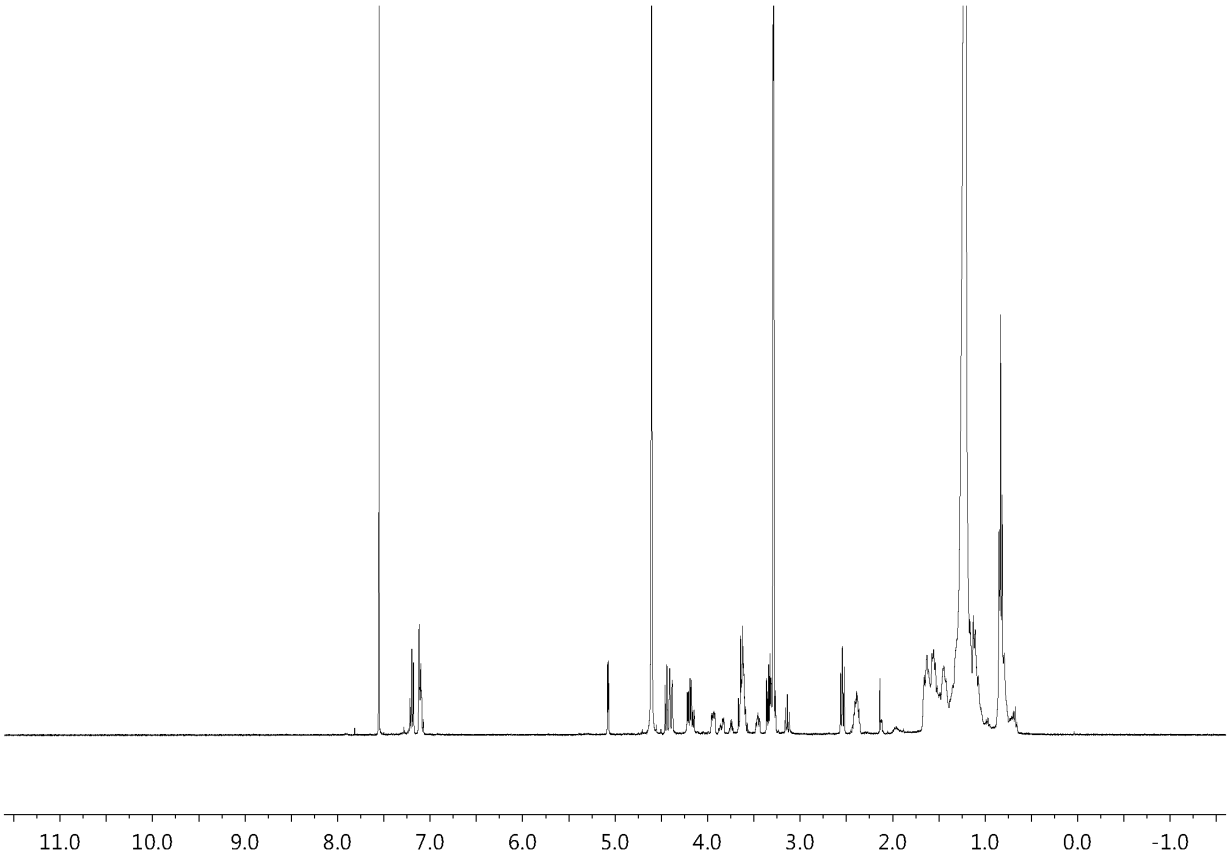


^{13}C NMR

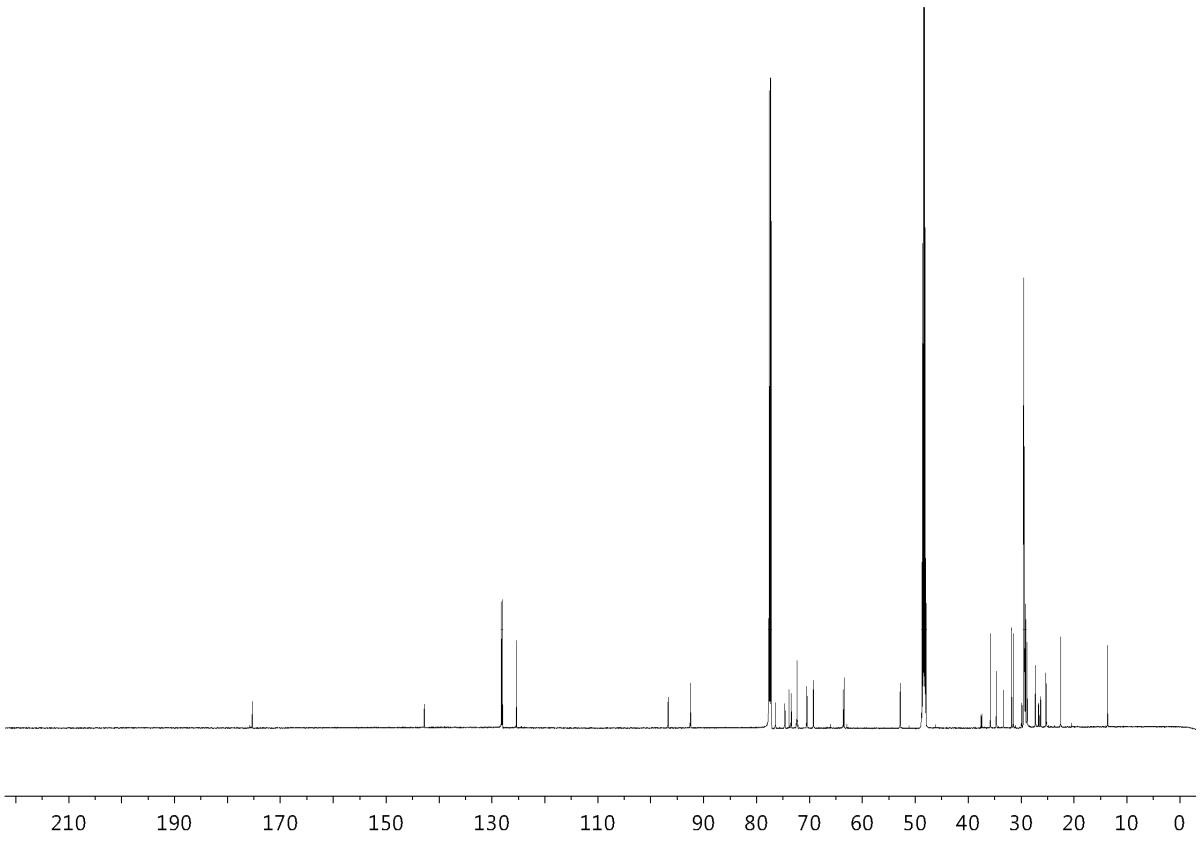


6-*O*-((2*R*,3*R*)-3-Hydroxy-2-(12-phenyldodecyl)octadecanoyl)-D-glucopyranose (34)

^{1}H NMR

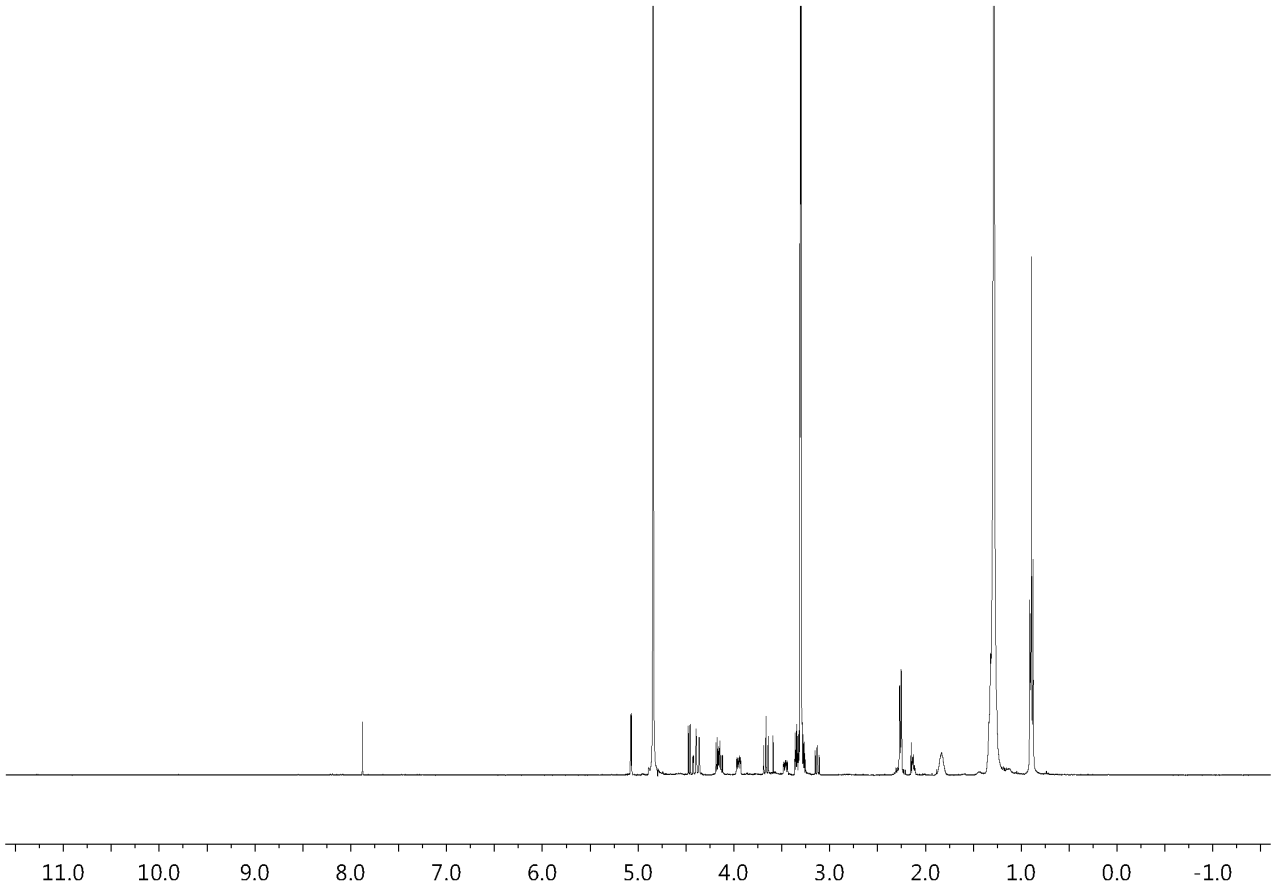


^{13}C NMR



6-*O*-(3'-Nonyl)dodecanoyl-D-glucose (35)

^{1}H NMR



^{13}C NMR