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Synthesis of mycobacterial phenolic glycolipids

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Synthesis of Mycobacterial Phenolic Glycolipids

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"The chase is better than the catch"

Scooter

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List of Abbreviations

Ac	Acetyl
All	Allyl
APT	Attached Proton Test
aq	Aqueous
arom	Aromatic
atm	Atmosphere
Bn	Benzyl
BSA	Bovine Serum Albumin
Bu	Butyl
Bz	Benzoyl
cat	Catalytic
Cbz	Carboxybenzyl
COSY	Correlation Spectroscopy
C_q	Quarternary carbon
CSA	Camphorsulfonic acid
d	Doublet
DABCO	Triethylenediamine
DBU	1,8-Diazabicyclo[5.4.0]undec-7-ene
DCE	1,2-Dichloroethane
DCM	Dichloromethane
DDQ	2,3-dichloro-5,6-dicyano- <i>para</i> -benzoquinone
DIBAL-H	Di- <i>iso</i> -butylaluminium hydride
DIC	<i>N,N</i> -di- <i>iso</i> -propylcarbodiimide
DIPEA	<i>N,N</i> -di- <i>iso</i> -propylethylamine
DMAP	<i>N,N</i> -dimethylaminopyridine
DMF	<i>N,N</i> -dimethylformamide
DMP	2,2-Dimethoxypropane or Dess-Martin Periodinane
DMSO	Dimethylsulfoxide
dppf	1,1'-Bis(diphenylphosphino)ferrocene

EDAA	Ethyl diazoacetate
EDC	1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide
ELISA	Enzyme-Linked ImmunoSorbent Assay
eq	Molar equivalents
Et	Ethyl
GPL	Glycopeptidolipid
HAS	Human Serum Albumin
HFIP	1,1,1,3,3,3-hexafluoroisopropanol
HMBC	Hetereonuclear Multiple Bond Correlation
HMPA	<i>N,N,N,N,N</i> -hexamethylphosphoramide
HOSA	Hydroxylamine- <i>O</i> -sulfonic acid
HRMS	High Resolution Mass Spectrometry
HSQC	Hetereonuclear Single Quantum Coherence
IDCP	Iodonium di- <i>sym</i> -collidine perchlorate
Ig	Immunoglobuline
IL	Interleukin
IR	Infrared
<i>J</i>	<i>J</i> -coupling
LDA	Lithium di- <i>iso</i> -propylamide
M	Molar
m	Multiplet
mCPBA	<i>meta</i> -Chloroperbenzoic acid
Me	Methyl
Nap	2-methylnaphtyl
NBS	<i>N</i> -bromosuccinimide
NIS	<i>N</i> -iodosuccinimide
NMR	Nuclear Magnetic Resonance
NTEC	<i>N</i> -thiophenyl- ϵ -caprolactam
<i>p</i>	Para
PGL	Phenolic Glycolipid

Ph	Phenyl
PIP	<i>para</i> -iodophenyl
Piv	Pivaloyl
PMB	<i>para</i> -methoxybenzyl
PMP	<i>para</i> -Methoxyphenyl
PNP	<i>para</i> -Nitrophenyl
q	Quartet
quant	Quantitative
rt	Room temperature
s	Singlet
sat	Saturated
<i>t</i>	Tertiary
t	Triplet
TBA	Tetrabutylammonium
T-BINAP	2,2-Bis(di- <i>para</i> -tolylphosphino)-1,1-binaphthyl
TBS	<i>tert</i> -Butyldimethylsilyl
TES	Triethylsilyl or Triethylsilane
Tf	Trifluoromethylsulfonyl
TFA	Trifluoroacetic acid
TFAA	Trifluoroacetic acid anhydride
THF	Tetrahydrofuran
TIPS	Tri- <i>iso</i> -propylsilyl
TLC	Thin Layer Chromatography
TMS	Trimethylsilyl or Tetramethylsilane
TMU	<i>N,N,N</i> -tetramethylurea
TNF-α	Tumor necrosis factor α
Tol	Toluene
TRIF	Toll-interleukin-receptor-domain-containing adapter-inducing interferon β
Trt	Triphenylmethyl / Trityl

Abbreviations

Ts	<i>para</i> -Toluenesulfonyl
TTBP	2,4,6-Tri- <i>tert</i> -butylpyrimidine
UV	Ultraviolet
δ	Chemical shift
ν	Wavenumber

