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Synthesis & biological applications of glycosylated iminosugars

Duivenvoorden, B.A.

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Synthesis & Biological Applications of Glycosylated Iminosugars

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Promotores: prof. dr. H.S. Overkleeft
prof. dr. J.M.F.G. Aerts (Universiteit van Amsterdam)

Co-promotor: dr. J.D.C. Codée

Overige leden: prof. dr. G.A. van der Marel
prof. dr. J. Brouwer
prof. dr. J. Lugtenburg
dr. M.D. Witte (Whitehead Institute, Boston, USA)

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Voor de mensen waar ik van hou.

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List of Abbreviations

4-MU	4-methylumbelliferyl/ 7-hydroxy-4-methylcoumarin	DCM	dichloromethane
Å	Ångstrom	DCMME	α,α -2,2-dichloromethyl methyl ether
Ac	acetyl	dd	double doublet
Ada	adamantane	DDQ	2,3-dichloro-5,6-dicyano- benzoquinone
All	allyl	DIPEA	<i>N,N</i> -diisopropyl- <i>N</i> -ethylamine
ALS-PDC	amyotrophic lateral sclero- sis parkinsonism dementia complex	DMAP	4-(<i>N,N</i> -dimethylamino)pyridine
AMCase	acidic mammalian chitinase	DMDP	2,5-dihydroxymethyl-3,4-di- hydroxypyrrolidine
AMP	5-(adamantan-1-yl-methoxy)- pentyl	DMF	<i>N,N</i> -dimethylformamide
aq	aqueous	DMSO	dimethylsulfoxide
Ar	aromatic	DMTST	dimethyl(methylthio)sulfonium trifluoromethanesulfonate
Bn	benzyl	DNJ	1-deoxynojirimycin
Boc	<i>tert</i> -butyloxycarbonyl	<i>et al.</i>	<i>et alii</i> (and others)
Bu	butyl	<i>e.g.</i>	<i>exempli gratia</i>
Bz	benzoyl	equiv	(molar) equivalents
<i>C. sacc.</i>	<i>Caldocellum saccharolyticum</i>	ERT	enzyme replacement therapy
CAN	ceric ammonium nitrate	Et	ethyl
cat	catalytic	g	gram(s)
Cbz	benzyloxycarbonyl	Gal	galactose
CHIT1	chitotriosidase	GBA1	glucocerebrosidase
d	doublet	GC	glucosylceramide
Δ	heat to reflux	GCS	glucosylceramide synthase
δ	chemical shift	Glc	glucose
DAB	1,4-dideoxy-1,4-imino-D- arbitinol	GSL	glycosphigolipid
DBU	1,8-diazabicyclo[5.4.0]undec- 7-ene	h	hour(s)
		HNJ	homonojirimycin

HPLC	high-performance liquid chromatography	<i>p</i>	para
HRMS	high resolution mass spectroscopy	Pd/C	palladium on activated charcoal
Hz	hertz	PE	petroleum ether
<i>i.e.</i>	<i>id est</i>	Ph	phenyl
IR	infrared	PTC	phase transfer conditions
<i>J</i>	coupling constant	pyr	pyridine
L	liter(s)	q	quartet
LCMS	liquid chromatography mass spectrometry	ref	reference
LPH	lactase-phlorizin hydrolase	RP	reverse phase
LSD	lysosomal storage disease	rT	room temperature
M	molar(s)	s	singlet
m	multiplet	sat	saturated
m/z	mass over charge ratio	spp	species
MCH	methyl cyclohexane	SRT	substrate reduction therapy
Me	methyl	t	triplet
mg	milligram(s)	TBAHS	<i>tert</i> -butylammonium hydrogen sulfate
MHz	mega Hertz	TBDMS	<i>tert</i> -butyldimethylsilyl
min	minute(s)	TEBA	benzyl triethyl ammonium chloride
mL	milliliter(s)	TES	triethyl silane
mmol	millimol(s)	Tf	trifluoromethanesulfonyl (triflate)
MPM	<i>para</i> -methoxybenzyl	TFA	trifluoroacetic acid
MS	mass spectrometry	TFE	2,2,2-trifluoroethanol
MS	molecular sieves	THF	tetrahydrofuran
NAP	2-naphthylmethyl	TLC	thin layer chromatography
NBS	<i>N</i> -bromosuccinimide	Tol	toluene
NIS	<i>N</i> -iodosuccinimide	TTBP	2,4,6-tri- <i>tert</i> -butylpyrimidine
NJ	nojirimycin	UDP	uridine diphosphate
Ns	4-nitrobenzenesulfonyl		

