

Materials List for:

Regioselective O-glycosylation of Nucleosides via the Temporary 2',3'-diol Protection by a Boronic Ester for the Synthesis of Disaccharide Nucleosides

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Materials

Name	Company	Catalog Number	Comments
Silver trifluoromethanesulfonate	Nacalai Tesque	34945-61	
Phenylboronic acid (contains varying amounts of anhydride)	Tokyo Chemical Industry	B0857	
<i>p</i> -Methoxyphenylboronic acid	Wako Pure Chemical Industries	321-69201	
4-(Trifluoromethyl)phenylboronic acid (contains varying amounts of anhydride)	Tokyo Chemical Industry	T1788	
2,4-Difluorophenylboronic acid (contains varying amounts of anhydride)	Tokyo Chemical Industry	D3391	
Cyclopentylboronic acid (contains varying amounts of Anhydride)	Tokyo Chemical Industry	C2442	
4-Nitrophenylboronic acid (contains varying amounts of anhydride)	Tokyo Chemical Industry	N0812	
4-Hexylphenylboronic acid (contains varying amounts of anhydride)	Tokyo Chemical Industry	H1489	
Adenosine	Merck KGaA	862.	
Guanosine	Acros Organics	411130050	
Cytidine	Tokyo Chemical Industry	C0522	
Uridine	Tokyo Chemical Industry	U0020	
5-Fluorouridine	Tokyo Chemical Industry	F0636	
5-Methyluridine	Sigma	M-9885	
Methylamine (40% in Methanol, ca. 9.8mol/L)	Tokyo Chemical Industry	M1016	
<i>N,N</i> -dimethyl-4-aminopyridine	Wako Pure Chemical Industries	044-19211	
Acetic anhydride	Nacalai Tesque	00226-15	
Pyridine, Dehydrated	Wako Pure Chemical Industries	161-18453	
Acetonitrile	Kanto Chemical	01031-96	
1,4-Dioxane	Nacalai Tesque	13622-73	
Dichloromethane	Wako Pure Chemical Industries	130-02457	
Propionitrile	Wako Pure Chemical Industries	164-04756	
Molecular sieves 4A powder	Nacalai Tesque	04168-65	
Molecular sieves 3A powder	Nacalai Tesque	04176-55	
Celite 545RVS	Nacalai Tesque	08034-85	
Acetonitrile-D3 (D,99.8%)	Cambridge Isotope Laboratories	DLM-21-10	

Trifluoroacetic acid	Nacalai Tesque	34831-25	
TLC Silica gel 60 F ₂₅₄	Merck KGaA	1.05715.0001	
Chromatorex	Fuji Silysia Chemical	FL100D	
Sodium hydrogen carbonate	Wako Pure Chemical Industries	191-01305	
Hydrochloric acid	Wako Pure Chemical Industries	080-01061	
Sodium sulfate	Nacalai Tesque	31915-96	
Chloroform	Kanto Chemical	07278-81	
Sodium chloride	Wako Pure Chemical Industries	194-01677	
Methanol	Nacalai Tesque	21914-74	
JEOL Always 300	JEOL		Measurement of NMR
Lamda 400	JEOL		Measurement of NMR
PerkinElmer Spectrum 100 FT-IR Spectrometer	Perkin Elmer		Measurement of IR
JEOL JMS-700	JEOL		Measurement of MS
PerkinElmer CHN 2400 analyzer	Perkin Elmer		Measurement of elemental analysis
JASCO P-1030 digital polarimeter	JASCO		Measurement of optical rotation
JASCO PU-2089 Plus intelligent HPLC pump	JASCO		For HPLC
Jasco UV-2075 Plus Intelligent UV/Vis Detector	JASCO		For HPLC
Rheodyne Model 7125 Injector	Sigma-Aldrich	58826	For HPLC
Chromatopac C-R8A	Shimadzu		For HPLC
Senshu Pak Pegasil ODS	Senshu Scientific		For HPLC
<i>p</i> -Toluenesulfonyl chloride			Prepared Ref. 38
Phenyl 6-O-acetyl-2,3,4-tri-O-benzyl-1-thio- α -D-mannopyranoside (a-9)			Prepared Ref. 52
4-Methylphenyl 2,3,4,6-tetra-O-benzoyl-1-thio- β -D-galactopyranoside (b-21)			Prepared Ref. 53
4-Methylphenyl 2,3,4,6-tetra-O-benzoyl-1-thio- β -D-glucopyranoside (b-31)			Prepared Ref. 57
4-Methylphenyl 2,3,4,6-tetra-O-benzoyl-1-thio- α -D-Mannopyranoside (a-32)			Prepared Ref. 67
6- <i>N</i> -Benzoyladenosine (14)			Prepared Ref. 54
2- <i>N</i> -Isobutyrylguanosine (16)			Prepared Ref. 55
4- <i>N</i> -Benzoylcytidine (20)			Prepared Ref. 56