

Гликозидирование

Технические характеристики

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Россия +7(495)268-04-70

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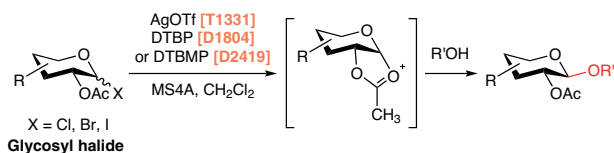
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Glycosidation

Glycosidation is a widely reported reaction in that glycosyl donors react with glycosyl acceptors like alcohols to form the glycosyl bond. It is an important reaction for the synthesis of glycans and natural products having a glycoside. Among them, choices have been made according to the property of the substance, desired stereoselectivity and the ease of the synthesis of glycosyl donors.¹⁾

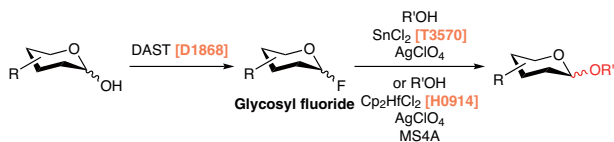
This brochure introduces a variety of reagents for glycosidations. We hope that it will be useful for your research in glyco chemistry.

Glycosyl Halides



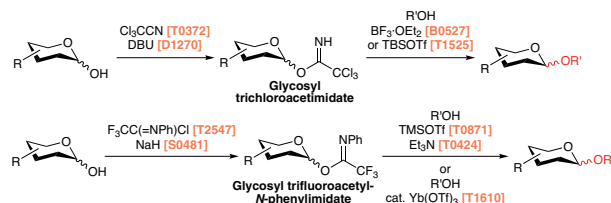
Glycosyl halides (haloglycosides) are sugars derivatized with halides except fluoride in 1-position. They are widely used in glycoside bond formation reactions. Especially, the Koenigs-Knorr glycosidation is one of the oldest glycosidations, in which glycosyl halides as substrates are reacted with a silver salt and a glycosyl acceptor like alcohols.²⁾ In this reaction, an organic base like DTBP [D1804] and DTBMP [D2419] is used as a scavenger of an acid generated *in situ*. Furthermore, when the substance has an acyl group at 2-position, *anti*-selective glycosidation reaction is observed due to the neighboring effect. On the other hand, when quaternary ammonium salts like TBAB [T0054] are used as a phase transfer catalyst, various aryl glycosides can be gained in bilayer reactions using KOH or K₂CO₃.³⁾

Glycosyl Fluorides



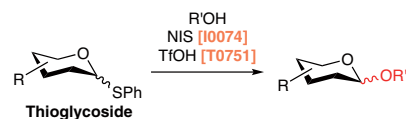
Glycosyl fluorides are more stable than other glycosyl halides and they can be purified. In 1981, Mukaiyama and coworkers found that glycosyl fluorides were activated by SnCl₂ [T3570]/AgClO₄ and became glycosyl donors.^{4a)} In addition, boron trifluoride, zirconocene and hafnocene complexes^{4b)} were found to be useful as activators, so the system using glycosyl fluorides has been utilized in the synthesis of complex sugar chains.

Glycosyl Imidates



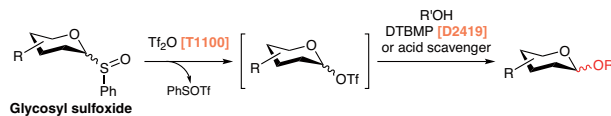
Glycosyl trichloroacetimidates are obtained by the treatment of trichloroacetonitrile [T0372] to sugars in the presence of a strong base and are activated by Lewis acids. This reaction has been widely used in the synthesis of sugar chains and the introduction of glycoside in total synthesis of natural products since the first report from Schmidt.⁵⁾ Furthermore, glycosyl trifluoroacetyl-N-phenylimidate, synthesized from 2,2,2-trifluoro-N-phenylacetimidoyl chloride [T2547] are more stable glycosyl donors and can be activated through the similar methods of trichloroacetimidates.⁶⁾

Thioglycosides



Thioglycosides are stable to most of protection/deprotection conditions, therefore they are utilized as multiple glycosyl donors for sugar synthesis since various protecting groups can be introduced. Especially, thioglycosides are used as glycosyl donors in sialylation and glycosyl donors with ingenuity in protecting group have been developed to afford α-glycosides more stereoselectively.⁷⁾ Thiophilic reagents like NIS [I0074]/trifluoromethanesulfonic acid [T0751] are utilized to gain activated thioglycosides.⁸⁾ Although thiols used in the synthesis of thioglycosides often have an unpleasant odor, recently glycosyl donors were reported with a thiol function, having less odor.⁹⁾

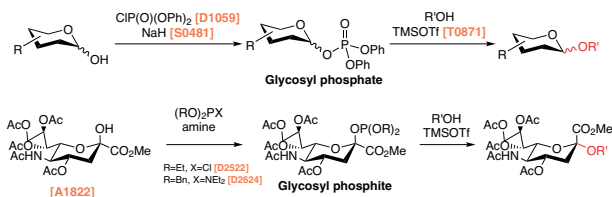
Glycosyl Sulfoxides



While thioglycosides can be used as described above, Kahne reported a new glycosidation method using a sulfoxide group as activating group.¹⁰⁾ Even sterically hindered nucleophiles and lower active nucleophiles can be reacted. Peroxides like *m*CPBA can oxidize thioglycosides and trifluoromethanesulfonic anhydride [T1100] is used for sequential activation of glycosyl sulfoxides. In addition, sterically hindered bases like DTBMP [D2419] or methyl propargylate [P0528] are used as a scavenger of the acid,

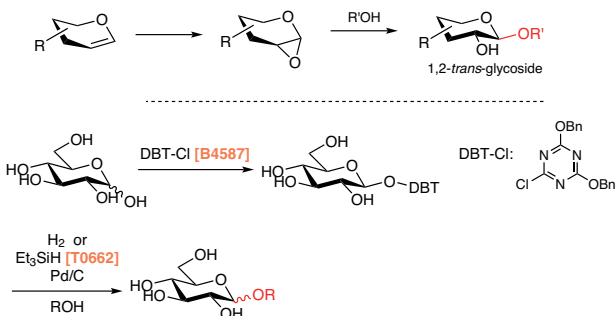
respectively.

Glycosyl Phosphates, Glycosyl Phosphites



The phosphorylation of anomeric hydroxyl groups with phosphorylating agents like diethyl chlorophosphate [D2206] gives glycosyl phosphates. Glycosyl phosphates are activated with Lewis acids like TMSOTf [T0871] to perform a glycosidation.¹¹⁾ Glycosyl phosphites were reported as glycosyl donors for the sialylation reaction by Schmidt and Wang at almost the same time.¹²⁾ Furthermore, glycosyl phosphites were used for the synthesis of other monoglycosides.

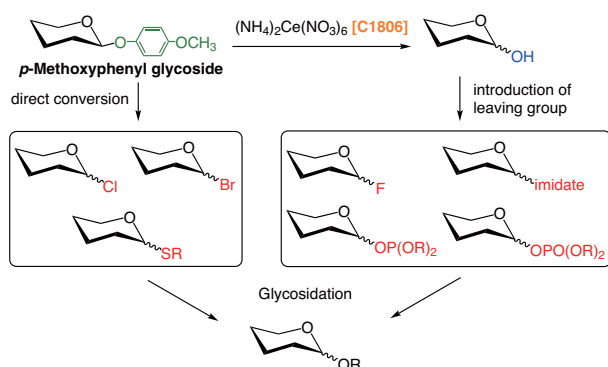
Other Reagents for Glycosidation



In addition to the glycosidations introduced so far, the method of formation of 1,2-*trans*-glycosides has been reported to utilize the stereoselective epoxide and subsequent nucleophilic ring-opening at the anomeric position in presence of suitable Lewis acid to afford 1,2-*trans*-glycosides.¹³⁾

Shoda and coworkers developed a triazole derivative utilized in the synthesis of unprotected glycosides. The triazine moiety is selectively introduced to the anomeric position of unprotected glycosides and the sugar gives the desired glycoside under catalytic reduction conditions in alcohols.¹⁴⁾

p-Methoxyphenyl (MP) Glycosides



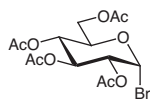
A thoughtful choice of anomeric protecting groups is often of

conclusive importance for the success of an oligosaccharide synthesis. The anomeric protecting group is required for stability in the applied reaction conditions and easy transformation into an activated derivative for further glycosidation.

The *p*-methoxyphenyl (MP) group is a stable anomeric protecting group¹⁵⁾ under most reaction conditions. It is selectively removed by treatment with ammonium cerium(IV) nitrate [C1806], to give the corresponding hemiacetals. These can be converted into glycosyl donors like glycosyl fluorides and glycosyl imidates. In addition, MP glycosides can be converted into the corresponding glycosyl halides and thioglycosides in one step in high yields. In this way, MPglycosides are widely used in oligosaccharide synthesis.

Glycosyl Halides

T1961 5g



2,3,4,6-Tetra-O-acetyl-
α-D-glucopyranosyl Bromide
(stabilized with CaCO₃)
CAS RN: 572-09-8

H0182 25g 100g 500g

HBr

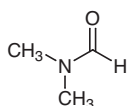
Hydrogen Bromide (30% in
Acetic Acid, ca. 5.1mol/L)
CAS RN: 10035-10-6

I0604 25g 500g

I₂

Iodine
CAS RN: 7553-56-2

D0722 25mL 100mL 500mL



N,N-Dimethylformamide
CAS RN: 68-12-2

Halogenation Reagents

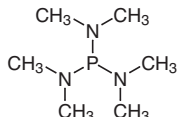
P1743 300g

PBr₃

Phosphorus Tribromide
CAS RN: 7789-60-8

Activators of Glycosyl Halides

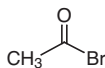
T1317 25mL 250mL



HMPT (may contain precipitate)
CAS RN: 1608-26-0

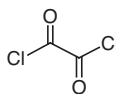
Glycosyl Donors

A0080 25g 500g



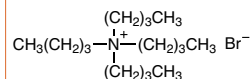
Acetyl Bromide
CAS RN: 506-96-7

O0082 25g 100g 500g



Oxalyl Chloride
CAS RN: 79-37-8

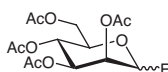
T0054 25g 100g 500g



TBAH
CAS RN: 1643-19-2

Glycosyl Donors

T2567 1g 5g

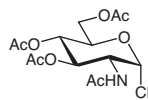


2,3,4,6-Tetra-O-acetyl-
D-mannopyranosyl
Fluoride
CAS RN: 174511-17-2

Activators of Glycosyl Fluorides

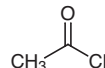
DAST
CAS RN: 38078-09-0

A1416 1g 5g



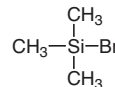
1-Chloro-2-acetamido-
2-deoxy-3,4,6-tri-O-acetyl-
α-D-glucose
CAS RN: 3068-34-6

A0082 100g 500g



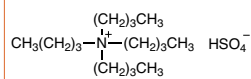
Acetyl Chloride
CAS RN: 75-36-5

B1087 5mL 25mL 250mL



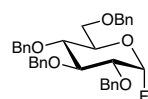
Bromotrimethylsilane
CAS RN: 2857-97-8

T0835 25g 100g 500g



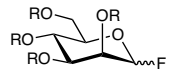
Tetrabutylammonium
Hydrogen Sulfate
CAS RN: 32503-27-8

T1922 500mg



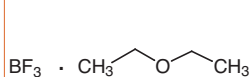
2,3,4,6-Tetra-O-benzyl-
α-D-glucopyranosyl
Fluoride
CAS RN: 89025-46-7

T2568 1g



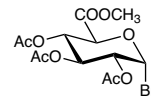
R = —C(=O)—C(CH₃)₃
2,3,4,6-Tetra-O-pivaloyl-
D-mannopyranosyl
Fluoride

B0527 25mL 100mL 500mL



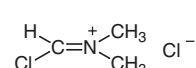
Boron Trifluoride -
Ethyl Ether Complex
CAS RN: 109-63-7

A3379 1g



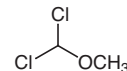
Methyl Acetobromo-
α-D-glucuronate
CAS RN: 21085-72-3

C1545 25g 250g



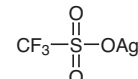
Vilsmeier Reagent
CAS RN: 3724-43-4

D1645 25g 100g 250g



Dichloromethyl Methyl
Ether
CAS RN: 4885-02-3

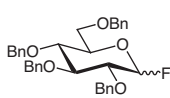
T1331 1g 10g 25g



Silver Triflate
CAS RN: 2923-28-6

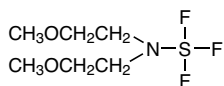
Glycosyl Fluorides

T1971 500mg



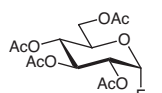
2,3,4,6-Tetra-O-benzyl-
D-glucopyranosyl
Fluoride
CAS RN: 122741-44-0

B6231 5g 25g



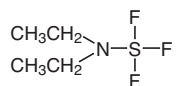
BAST
(ca. 50% in Tetrahydrofuran)
CAS RN: 202289-38-1

T1995 1g



2,3,4,6-Tetra-O-acetyl-
α-D-glucopyranosyl
Fluoride
CAS RN: 3934-29-0

D1868 5g 25g 100g



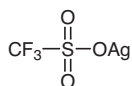
DAST
CAS RN: 38078-09-0

Fluorination Reagents

H0914 1g 5g 25g



Hafnocene Dichloride
CAS RN: 12116-66-4

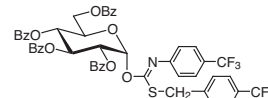
T1331 1g 10g 25gSilver Triflate
CAS RN: 2923-28-6**T3570** 1g 5gStannous Chloride
CAS RN: 7772-99-8**Z0007** 5g 25gZirconocene Dichloride
CAS RN: 1291-32-3

Glycosyl Imidates

Glycosyl Donors

T1991

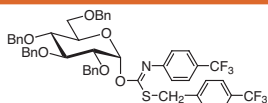
200mg 1g

2,3,4,6-Tetra-O-benzoyl-α-D-glucopyranosyl
p-Trifluoromethylbenzylthio-*N*-(*p*-trifluoromethylphenyl)-
formimidate

CAS RN: 428816-48-2

T1999

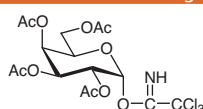
200mg 1g

2,3,4,6-Tetra-O-benzyl-α-D-glucopyranosyl
p-Trifluoromethylbenzylthio-*N*-(*p*-trifluoromethylphenyl)-
formimidate

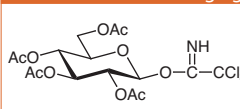
CAS RN: 468095-63-8

T2295

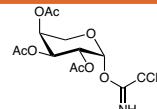
1g 5g

2,3,4,6-Tetra-O-acetyl-
α-D-galactopyranosyl
2,2,2-Trichloroacetimidate
CAS RN: 86520-63-0**T2491**

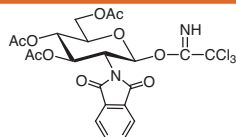
1g 5g

2,3,4,6-Tetra-O-acetyl-
β-D-glucopyranosyl
2,2,2-Trichloroacetimidate
CAS RN: 92052-29-4**T2695**

Please contact us.

2,3,4-Tri-O-acetyl-
β-L-arabinopyranosyl
2,2,2-Trichloroacetimidate
CAS RN: 869848-87-3**T2615**

Please contact us.

3,4,6-Tri-O-acetyl-2-deoxy-2-phthalimido-
β-D-glucopyranosyl 2,2,2-Trichloroacetimidate
CAS RN: 87190-67-8

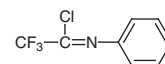
Reagents to Form Imidates

T0372

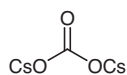
25g 100g 500g

Trichloroacetonitrile
CAS RN: 545-06-2**T2547**

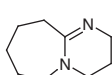
5g 25g

2,2,2-Trifluoro-*N*-phenyl-
acetimidoyl Chloride
CAS RN: 61881-19-4**C2160**

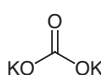
25g 100g

Cesium Carbonate
CAS RN: 534-17-8**D1270**

25g 100g 500g

DBU
CAS RN: 6674-22-2**P1748**

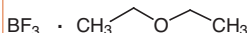
300g

Potassium Carbonate
CAS RN: 584-08-7**S0481**

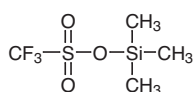
100g 500g

Sodium Hydride (60%,
dispersion in Paraffin Liquid)
CAS RN: 7646-69-7

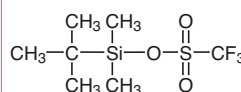
Activators of Glycosyl Imidates

B0527 25mL 100mL 500mLBoron Trifluoride -
Ethyl Ether Complex
CAS RN: 109-63-7**T0871**

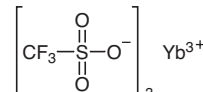
5g 25g 250g

TMSOTf
CAS RN: 27607-77-8**T1525**

5g 25g

TBDMS Triflate
CAS RN: 69739-34-0**T1610**

5g 25g

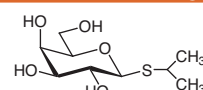
Ytterbium(III) Triflate
CAS RN: 54761-04-5

Thioglycosides

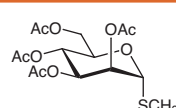
Glycosyl Donors

I0328

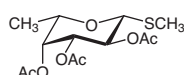
1g 5g

Isopropyl 1-Thio-
β-D-galactopyranoside
CAS RN: 367-93-1**M1501**

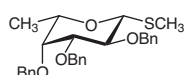
5g

Methyl 2,3,4,6-Tetra-O-acetyl-
1-thio-α-D-mannopyranoside
(contains ca. 5% β-isomer)
CAS RN: 64550-71-6**M1626**

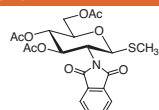
1g 5g

Methyl 2,3,4-Tri-O-acetyl-
1-thio-β-L-fucopyranoside
CAS RN: 84635-54-1**M1628**

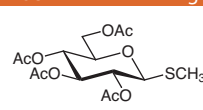
1g

Methyl 2,3,4-Tri-O-benzyl-
1-thio-β-L-fucopyranoside
CAS RN: 107802-80-2**M1649**

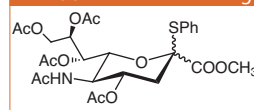
1g 5g

Methyl 3,4,6-Tri-O-acetyl-
2-deoxy-2-phthalimido-
1-thio-β-D-glucopyranoside
CAS RN: 79528-48-6**M1682**

1g 5g

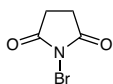
Methyl 2,3,4,6-Tetra-
O-acetyl-1-thio-
β-D-glucopyranoside
CAS RN: 13350-45-3**M1706**

1g

Neu5Ac[1Me,4789Ac]-SPh
CAS RN: 155155-64-9

M1759 1g GlcA[234Ac,6Me]-β-SPh CAS RN: 62812-42-4	M2319 200mg 1g Methyl 5-Acetamido-7,8,9-tri-O-acetyl-5-N,4-O-carbonyl-3,5-dideoxy-2-S-phenyl-2-thio-D-glycero-β-D-galacto-2-nonulopyranosylonate CAS RN: 934591-76-1	M2329 1g Methyl 5-N,4-O-Carbonyl-3,5-dideoxy-2-S-phenyl-2-thio-D-glycero-β-D-galacto-2-nonulopyranosylonate CAS RN: 934591-79-4		
M2330 Please contact us. Methyl 7,8,9-Tri-O-acetyl-5-N,4-O-carbonyl-3,5-dideoxy-2-S-phenyl-2-thio-D-glycero-β-D-galacto-2-nonulopyranosylonate CAS RN: 2416647-62-4	M2695 100mg Methyl (Phenyl 5-Acetamido-4,7,8-tri-O-acetyl-9-azido-3,5,9-trideoxy-2-thio-D-glycero-β-D-galacto-2-nonulopyranosid)onate CAS RN: 219814-65-0	M2696 100mg Neu5GcAc[1Me,478Ac,9N3]-β-SPh CAS RN: 1195053-25-8		
P1475 5g Phenyl 4,6-O-Benzylidene-1-thio-β-D-glucopyranoside CAS RN: 87508-17-6	P1476 5g 25g Phenyl 2,3,4,6-Tetra-O-acetyl-1-thio-β-D-glucopyranoside CAS RN: 23661-28-1	P1477 5g 25g Phenyl 2,3,4,6-Tetra-O-acetyl-1-thio-β-D-galactopyranoside CAS RN: 24404-53-3	P1642 1g 5g Phenyl 3,4,6-Tri-O-acetyl-2-deoxy-1-thio-2-(2,2,2-trichloroethoxyformamido)-β-D-galactopyranoside CAS RN: 278784-83-1	
P1643 Please contact us. Phenyl 2-Deoxy-1-thio-2-(2,2,2-trichloroethoxyformamido)-β-D-galactopyranoside CAS RN: 868230-98-2	P1660 1g Gal[246Bn,3All]-β-SPh CAS RN: 1017587-57-3	P1679 1g Gal[2346Bn]-β-SPh CAS RN: 74801-29-9	P1680 1g Gal[246Ac,3All]-β-SPh CAS RN: 1820572-28-8	
P1736 1g Phenyl 2,4,6-Tri-O-acetyl-3-O-allyl-1-thio-β-D-glucopyranoside CAS RN: 197005-22-4	P1762 1g Phenyl N-Benzyl-2-amino-4,6-O-benzylidene-2-N,3-O-carbonyl-2-deoxy-1-thio-β-D-glucopyranoside CAS RN: 910805-49-1	P1842 1g 5g Phenyl 2,3,4-Tri-O-benzyl-1-thio-β-L-fucopyranoside CAS RN: 167612-35-3	P1866 5g Phenyl 3,4,6-Tri-O-acetyl-2-deoxy-1-thio-2-(2,2,2-trichloroethoxyformamido)-β-D-glucopyranoside CAS RN: 187022-49-7	
P2078 1g Phenyl 2-O-Acetyl-3,4,6-tri-O-benzyl-1-thio-β-D-galactopyranoside CAS RN: 183875-28-7	P2521 5g Phenyl 2,3,4,6-Tetra-O-acetyl-1-thio-α-D-mannopyranoside CAS RN: 108032-93-5	Thiolation Reagents		
E0036 25mL 500mL Ethanethiol CAS RN: 75-08-1	P0489 25mL 500mL 2-Propanethiol CAS RN: 75-33-2			
D0970 25mL 500mL 1-Dodecanethiol CAS RN: 112-55-0	T0290 5g 25g 500g p-Toluenethiol CAS RN: 106-45-6	B1691 25mL 5-tert-Butyl-2-methylbenzenethiol CAS RN: 7340-90-1	M1881 5g 25g Methyl Thiosalicylate CAS RN: 4892-02-8	T2030 25g 250g S-Potassium Thioacetate CAS RN: 10387-40-3
T2475 300g Thiourea CAS RN: 62-56-6	P1378 5g 25g (Phenylthio)trimethylsilane CAS RN: 4551-15-9	B0527 25mL 100mL 500mL Boron Trifluoride - Ethyl Ether Complex CAS RN: 109-63-7	T0871 5g 25g 250g TMSOTf CAS RN: 27607-77-8	T2053 100mL Tin(IV) Chloride (ca. 1.0mol/L in Dichloromethane) CAS RN: 7646-78-8

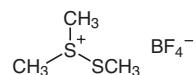
Activators of Thioglycosides



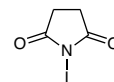
B0656 25g 100g 500g
N-Bromosuccinimide
CAS RN: 128-08-5



C2389 25g 500g
Copper(II) Bromide
CAS RN: 7789-45-9



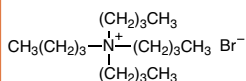
D1945 1g 5g
DMTSF
CAS RN: 5799-67-7



I0074 5g 25g 100g
N-Iodosuccinimide
CAS RN: 516-12-1



I0604 25g 500g
Iodine
CAS RN: 7553-56-2



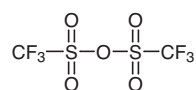
T0054 25g 100g 500g
TBABr
CAS RN: 1643-19-2



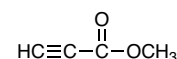
T0751 10g 25g 250g
Trifluoromethanesulfonic Acid
CAS RN: 1493-13-6

Glycosyl Sulfoxides

Activators of Glycosyl Sulfoxides

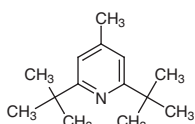


T1100 10g 25g 250g
Trifluoromethanesulfonic Anhydride
CAS RN: 358-23-6



P0528 5mL 25mL
Methyl Propiolate
CAS RN: 922-67-8

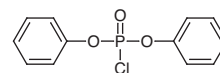
D2419 5g 25g



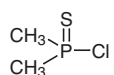
DTBMP
CAS RN: 38222-83-2

Glycosyl Phosphates, Glycosyl Phosphites

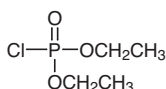
Reagents for Phosphorylations and Phosphitylations



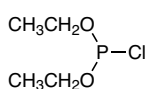
D1059 25g 100g 500g
Diphenyl Chlorophosphate
CAS RN: 2524-64-3



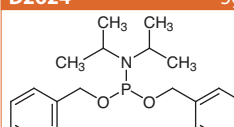
D2159 1g 5g
Dimethylthiophosphinoyl Chloride
CAS RN: 993-12-4



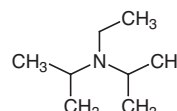
D2206 25g 250g
Diethyl Chlorophosphate
CAS RN: 814-49-3



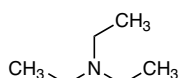
D2522 5g
Diethyl Chlorophosphite
CAS RN: 589-57-1



D2624 5g
Dibenzy N,N-Diisopropylphosphoramidite
CAS RN: 108549-23-1



D1599 25mL 100mL 500mL
N,N-Diisopropylethylamine
CAS RN: 7087-68-5

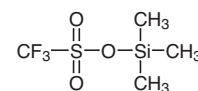


T0424 5mL 25mL 100mL 500mL
Triethylamine
CAS RN: 121-44-8



T1880 5g 25g
1H-1,2,3-Triazole
CAS RN: 288-36-8

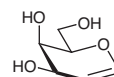
Activators of Glycosyl Phosphates and Glycosyl Phosphites



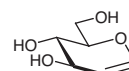
T0871 5g 25g 250g
TMSOTf
CAS RN: 27607-77-8

Other Reagents for Glycosidation

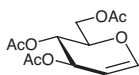
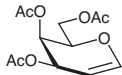
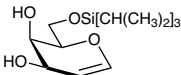
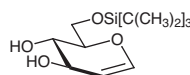
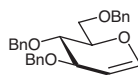
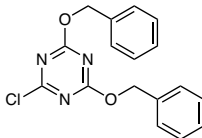
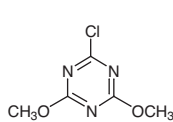
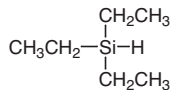
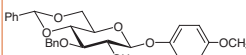
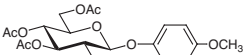
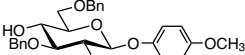
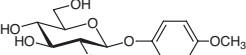
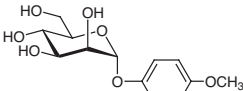
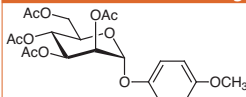
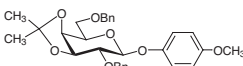
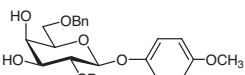
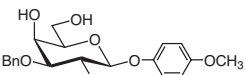
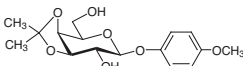
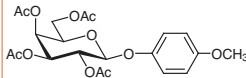
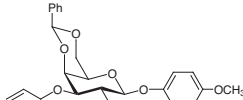
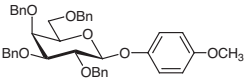
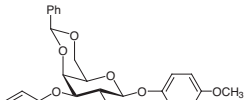
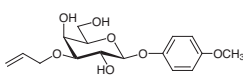
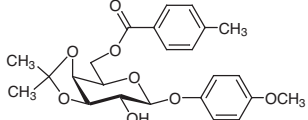
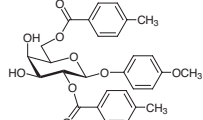
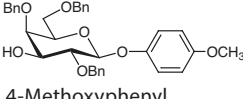
Glycals

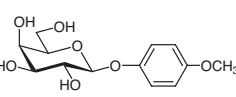
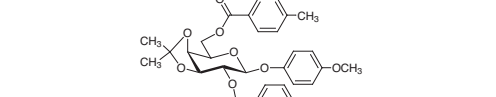
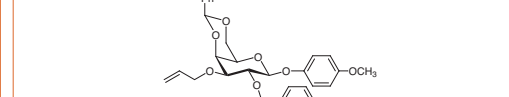
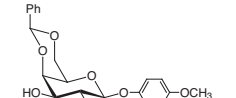
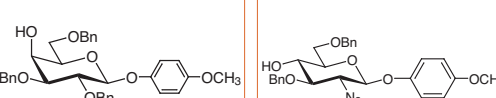
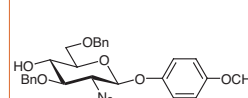
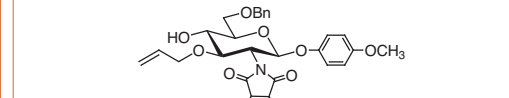
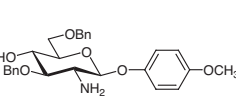
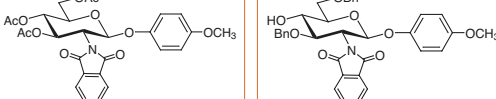
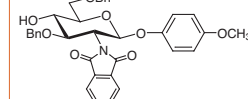
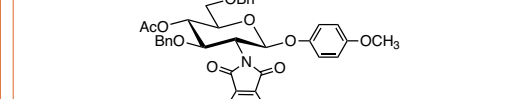
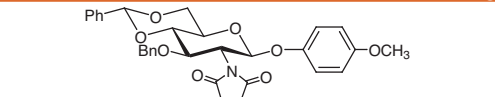
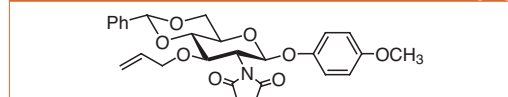
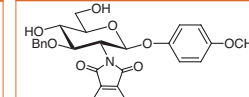
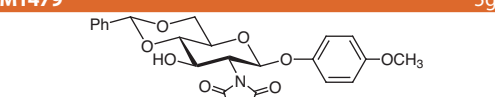
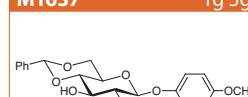
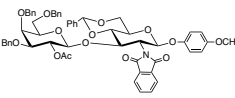
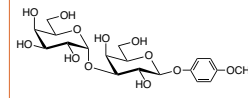
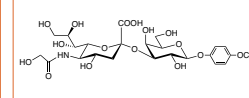
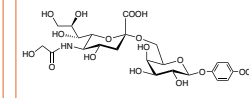
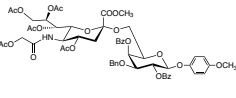
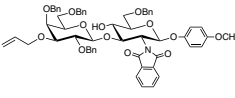
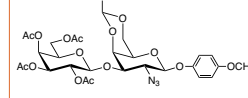
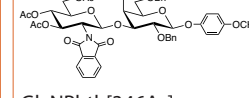
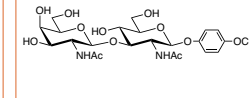
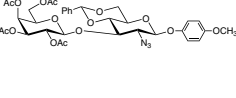
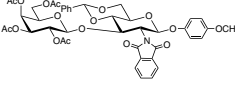
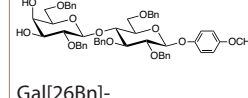
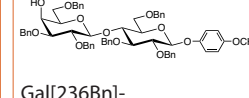
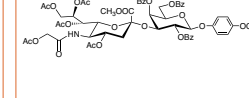


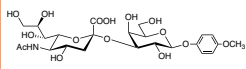
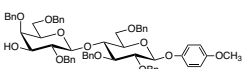
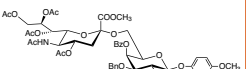
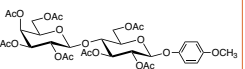
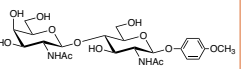
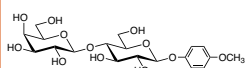
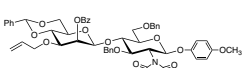
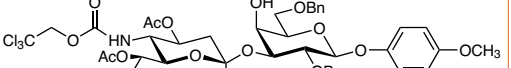
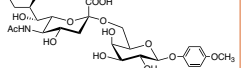
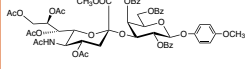
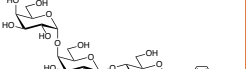
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D-Galactal
CAS RN: 21193-75-9



G0274 1g 5g
D-Glucal
CAS RN: 13265-84-4

T15965g 25g  Tri-O-acetyl-D-glucal CAS RN: 2873-29-2	T17341g 5g  Tri-O-acetyl-D-galactal CAS RN: 4098-06-0	T1935200mg  6-O-(Triisopropylsilyl)-D-galactal CAS RN: 166021-01-8	T1936100mg  6-O-(Triisopropylsilyl)-D-glucal CAS RN: 137915-37-8	T18591g 5g  Tri-O-benzyl-D-glucal CAS RN: 55628-54-1
Activators of Unprotected Sugars				
P14915g 25g Pd Palladium 10% on Carbon (wetted with ca. 55% Water) CAS RN: 7440-05-3	B4587200mg 1g  DBT-Cl CAS RN: 851030-18-7	C16765g 25g 250g  CDMT CAS RN: 3140-73-6	T066225mL 250mL  Triethylsilane CAS RN: 617-86-7	P14905g 25g Pd Palladium 5% on Carbon (wetted with ca. 55% Water) CAS RN: 7440-05-3
p-Methoxyphenyl (MP) Glycosides				
Mono-saccharides				
M16401g 5g  4-Methoxyphenyl 3-O-Benzyl-4,6-O-benzylidene-beta-D-glucopyranoside CAS RN: 303127-81-3	M16305g  4-Methoxyphenyl 2,3,4,6-Tetra-O-acetyl-beta-D-glucopyranoside CAS RN: 14581-81-8	M2434Please contact us.  4-Methoxyphenyl 2-O-Benzoyl-3,6-di-O-benzyl-beta-D-glucopyranoside CAS RN: 1393898-89-9	M16315g 25g  4-Methoxyphenyl beta-D-Glucopyranoside CAS RN: 6032-32-2	M16465g  4-Methoxyphenyl alpha-D-Mannopyranoside CAS RN: 28541-75-5
M16475g  4-Methoxyphenyl 2,3,4,6-Tetra-O-acetyl-alpha-D-mannopyranoside CAS RN: 17042-40-9	M16331g 5g  4-Methoxyphenyl 2,6-Di-O-benzyl-3,4-O-isopropylidene-beta-D-galactopyranoside CAS RN: 159922-68-6	M16341g 5g  4-Methoxyphenyl 2,6-Di-O-benzyl-beta-D-galactopyranoside CAS RN: 159922-50-6	M17251g 5g  4-Methoxyphenyl 3-O-Benzyl-beta-D-galactopyranoside CAS RN: 383905-60-0	M15931g 5g  4-Methoxyphenyl 3,4-O-isopropylidene-beta-D-galactopyranoside CAS RN: 159922-67-5
M14775g 25g  4-Methoxyphenyl 2,3,4,6-Tetra-O-acetyl-beta-D-galactopyranoside CAS RN: 2872-65-3	M16201g  4-Methoxyphenyl 3-O-Allyl-2-O-benzyl-4,6-O-benzylidene-beta-D-galactopyranoside CAS RN: 2160551-35-7	M15885g  4-Methoxyphenyl 2,3,4,6-Tetra-O-benzyl-beta-D-galactopyranoside CAS RN: 143536-99-6	M15891g 5g  4-Methoxyphenyl 3-O-Allyl-4,6-O-benzylidene-beta-D-galactopyranoside CAS RN: 400091-05-6	M14825g  4-Methoxyphenyl 3-O-Allyl-beta-D-galactopyranoside CAS RN: 144985-19-3
M15941g  4-Methoxyphenyl 3,4-O-isopropylidene-6-O-(4-methylbenzoyl)-beta-D-galactopyranoside CAS RN: 1820580-75-3	M15971g  4-Methoxyphenyl 2,6-Bis-O-(4-methylbenzoyl)-beta-D-galactopyranoside CAS RN: 1820570-59-9	M15921g  4-Methoxyphenyl 2,4,6-Tri-O-benzyl-beta-D-galactopyranoside CAS RN: 247027-79-8		

M1481 5g 25g  4-Methoxyphenyl β-D-Galactopyranoside CAS RN: 3150-20-7	M1596 1g  4-Methoxyphenyl 3,4-O-Isopropylidene- 2,6-bis-O-(4-methylbenzoyl)-β-D-galactopyranoside CAS RN: 1496536-69-6	M1590 1g  4-Methoxyphenyl 3-O-Allyl-4,6-O-benzylidene- 2-O-(4-methylbenzoyl)-β-D-galactopyranoside		
M1710 Please contact us.  4-Methoxyphenyl 4,6-O-Benzylidene- β-D-galactopyranoside CAS RN: 176299-96-0	M2104 Please contact us.  4-Methoxyphenyl 2,3,6-Tri-O-benzyl- β-D-galactopyranoside CAS RN: 869107-36-8	M1617 1g  4-Methoxyphenyl 2-Azido- 3,6-di-O-benzyl-2-deoxy- β-D-glucopyranoside CAS RN: 1272755-25-5	M1604 1g 5g  4-Methoxyphenyl 3-O-Allyl-6-O-benzyl-2-deoxy- 2-phthalimido-β-D-glucopyranoside CAS RN: 1820583-64-9	
M1616 1g  4-Methoxyphenyl 2-Amino- 3,6-di-O-benzyl-2-deoxy- β-D-glucopyranoside CAS RN: 1272755-07-3	M1480 5g  4-Methoxyphenyl 3,4,6-Tri- O-acetyl-2-deoxy-2-phthalimido- β-D-glucopyranoside CAS RN: 138906-41-9	M1615 1g  4-Methoxyphenyl 3,6-Di-O- benzyl-2-deoxy-2-phthalimido- β-D-glucopyranoside CAS RN: 129575-89-9	M1834 1g 5g  4-Methoxyphenyl 4-O-Acetyl-3,6-di-O-benzyl-2-deoxy- 2-phthalimido-β-D-glucopyranoside CAS RN: 140615-77-6	
M1609 1g  4-Methoxyphenyl 3-O-Benzyl-4,6-O-benzylidene- 2-deoxy-2-phthalimido-β-D-glucopyranoside CAS RN: 129575-88-8	M1598 1g 5g  4-Methoxyphenyl 3-O-Allyl-4,6-O-benzylidene- 2-deoxy-2-phthalimido-β-D-glucopyranoside CAS RN: 889453-84-3	M1610 Please contact us.  4-Methoxyphenyl 3-O-Benzyl- 2-deoxy-2-phthalimido- β-D-glucopyranoside CAS RN: 138906-44-2		
M1479 5g  4-Methoxyphenyl 4,6-O-Benzylidene- 2-deoxy-2-phthalimido-β-D-glucopyranoside CAS RN: 138906-43-1	M1637 1g 5g  4-Methoxyphenyl 2-Azido- 4,6-O-benzylidene-2-deoxy- β-D-glucopyranoside CAS RN: 1430068-18-0	M1643 1g  4-Methoxyphenyl 3-O-Allyl-2-azido-4,6-O-benzylidene- 2-deoxy-β-D-galactopyranoside CAS RN: 889453-83-2		
Disaccharides	G0374 Please contact us.  Gal[2Ac,346Bn]- β(1-3)GlcNPhth[46Bzd]-β-MP	G0461 50mg  Galα(1-3)Gal-β-MP	N0793 5mg  Neu5Gcα(2-3)Galβ MP Glycoside CAS RN: 1072896-38-8	N0794 5mg  Neu5Gcα(2-6)Galβ MP Glycoside CAS RN: 1072896-38-8
M1763 200mg  Neu5GcAc[1Me,4789Ac]- α(2-6)Gal[24Bz,3Bn]-β-MP	G0379 Please contact us.  Gal[3AlI,246Bn]- β(1-3)GlcNPhth[6Bn]-β-MP	G0330 1g 5g  Gal[2346Ac]- β(1-3)GalN3[46Bzd]-β-MP	G0299 200mg 1g  GlcNPhth[346Ac]- β(1-3)Gal[246Bn]-β-MP CAS RN: 1820575-44-7	M1776 5mg  LacDiNAc(I) MP Glycoside CAS RN: 1858223-95-6
G0309 1g 5g  Gal[2346Ac]- β(1-3)GlcN3[46Bzd]-β-MP	G0311 1g 5g  Gal[2346Ac]- β(1-3)GlcNPhth[46Bzd]-β-MP	M1686 1g 5g  Gal[26Bn]- β(1-4)Glc[236Bn]-β-MP CAS RN: 358681-61-5	M1726 1g 5g  Gal[236Bn]- β(1-4)Glc[236Bn]-β-MP CAS RN: 150412-81-0	N0816 Please contact us.  Neu5GcAc[1Me,4789Ac]- α(2-3)Gal[246Bz]-β-MP

N0791 10mg 50mg  Neu5Acα(2-3)Galβ MP Glycoside CAS RN: 159922-54-0	M1727 1g  Gal[246Bn]-β(1-4)Glc[236Bn]-β-MP CAS RN: 717132-49-5	M1761 200mg  Neu5Ac[1Me,4789Ac]-α(2-6)Gal[24Bz,3Bn]-β-MP	M1694 Please contact us.  LacMP per OAc CAS RN: 160227-12-3	M1733 5mg  LacDiNAc MP Glycoside CAS RN: 1858224-01-7
M1805 1g  Galβ(1-4)Glc-β-MP CAS RN: 150412-80-9	M2442 Please contact us.  Man[2Bz,3AlI,46Bzd]-β(1-4)GlcNPhth[36Bn]-β-MP CAS RN: 2064311-96-0	M1729 1g  Neu5Troc[1Me,4789Ac]-α(2-3)Gal[26Bn]-β-MP CAS RN: 610763-72-9	N0792 10mg 50mg  Neu5Acα(2-6)Galβ MP Glycoside CAS RN: 1984814-41-6	
N0846 200mg 1g  Neu5Ac[1Me,4789Ac]-α(2-3)Gal[246Bz]-β-MP CAS RN: 1858223-85-4	Trisaccharides	M1767 100mg  Gb ₃ -β-MP CAS RN: 898826-64-7	F0584 Please contact us.  Forssman Pentaose MP Glycoside CAS RN: 1858224-10-8	
Deprotecting Reagent for MP Group	C1806 50g 500g $(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6$ Ammonium Cerium(IV) Nitrate CAS RN: 16774-21-3			

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