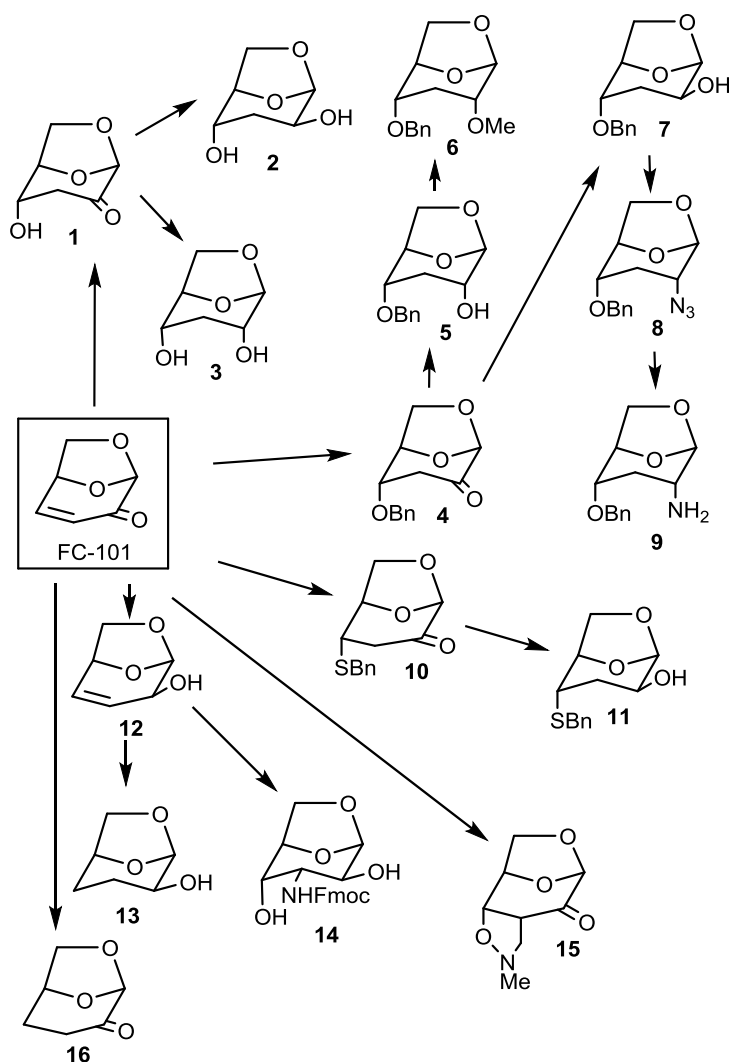


Potential Derivatives of Levoglucosenone

Levoglucosenone is a bicyclic α , β -unsaturated ketone containing a protected aldehyde. The highly dehydrated sugar is derived from cellulose and comprises a valuable intermediate in the synthesis of biologically active compounds and chiral therapeutic agents.

GlycoSyn has a high level of experience with the chemistry of Levoglucosenone and its derivatives and we are happy to quote for custom synthesis requests of Levoglucosenone derivatives.



Selected Publications

1. F. Shafizadeh, R.H. Furneaux, and T.T. Stevenson, Some Reactions of Levoglucosenone, *Carbohydrate Research*, **71** (1979) 169-191.
2. F. Shafizadeh, R.H. Furneaux, D. Pang, and T.T. Stevenson, Base Catalyzed Oligomerization of Levoglucosenone, *Carbohydrate Research*, **100** (1982) 303-313.
3. T.T. Stevenson, R.E. Stenkamp, L.H. Jensen, F. Shafizadeh, and R.H. Furneaux, The Crystal Structure of an Olefinic Cyclic Trimer of Levoglucosenone, *Carbohydrate Research*, **104** (1982) 11-19.
4. T.T. Stevenson, R.H. Furneaux, D. Pang, F. Shafizadeh, L.H. Jensen, and R.E. Stenkamp, The Crystal Structure of a Non-Alkenic, Cyclic Trimer of Levoglucosenone, *Carbohydrate Research*, **112** (1983) 179-187.
5. R.F. Henzell, R.H. Furneaux, and P.C. Tyler, An Evaluation of the Herbicidal and Plant Growth Regulatory Activity of a Novel Class of Carbohydrate-Derived 6,8-Dioxabicyclo[3.2.1]octanes, *Pesticide Science*, **30** (1990) 59-66.
6. R. Blattner, R.H. Furneaux, J.M. Mason and P.C. Tyler, 2-Benzyloxy-6,8-dioxabicyclo[3.2.1]octanes: New Carbohydrate Derived Herbicides, *Pesticide Science*, **31** (1991) 419-435.
7. R. Blattner, R.H. Furneaux, J.M. Mason and P.C. Tyler, Synthesis of the Herbicide 1,6-Anhydro-4-*O*-benzyl-3-deoxy-2-*O*-methyl- β -D-ribo-hexopyranose and Analogues from Levoglucosenone and Levoglucosan, in "Levoglucosenone and Levoglucosans; Chemistry and Applications", Ed. Z.J. Witczak, ATL Press, USA, 1994, Pp 43-57.
8. G.J. Gainsford, R.H. Furneaux, J.M. Mason and P.C. Tyler, the Crystal & Molecular Structures of 1,6-Anhydro-4-*O*-benzyl-3-deoxy-2-*O*-methyl- β -D-ribo-hexopyranose and 1,6-Anhydro-4-*O*-benzyl-2-*C*-(2-cyanoethyl)-2,3-dideoxy- β -D-ribo-hexopyranose, *Acta Crystallographica*, **C51** (1995) 2418-2421.
9. G.J. Gainsford, P.C. Tyler and R.H. Furneaux, (1*R*, 2*S*, 4*R*)-2-Benzyloxy-4-methoxy-5-(1-methylethyl)-6,8-dioxabicyclo[3.2.1]octane and (1*R*, 2*S*, 4*R*)-2-Benzyloxy-4-methoxy-2-methyl-6,8-dioxabicyclo[3.2.1]octane, *Acta Crystallographica*, **C52** (1996) 1274-1277.