

## Galactose

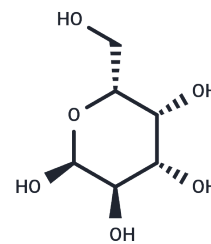
### Chemical Properties

CAS No. : 3646-73-9

Formula: C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>

Molecular Weight: 180.16

Storage: Store under nitrogen, Store at low temperature  
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
*Actual storage temperature shall be subject to the COA.*



### Biological Description

Description	Galactose is a monosaccharide and hexose sugar widely present in most living cells, primarily absorbed into the bloodstream via SGLT1 and GLUT2 transporters and metabolised through the Leloir pathway. It inhibits alglucerase activity in monkey kidney CoS-1 cells, is a key component of cellular glycosylation, and plays a crucial role in neonatal neural development.
Targets(IC50)	Others, HIV Protease, Endogenous Metabolite

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.5506 mL	27.7531 mL	55.5062 mL
5 mM	1.1101 mL	5.5506 mL	11.1012 mL
10 mM	0.5551 mL	2.7753 mL	5.5506 mL
50 mM	0.111 mL	0.5551 mL	1.1101 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Zhang J, et al. Chemical characterisation of polysaccharides from *Lilium davidii*. *Nat Prod Res.* 2010 Mar;24(4):357-69.

Lee WY, et,al. Effects of melatonin on a d-galactose-induced male reproductive aging mouse model. *Theriogenology.* 2023 Aug;206:181-188.

Chen F,et,al. Ergothioneine improves cognitive function by ameliorating mitochondrial damage and decreasing neuroinflammation in a D-galactose-induced aging model. *Food Funct.* 2024 Nov 25;15(23):11686-11696.

Li Z,et,al. Characterization of microcirculatory endothelial functions in a D-Galactose-induced aging model. *Microvasc Res.* 2025 Jan;157:104757.

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