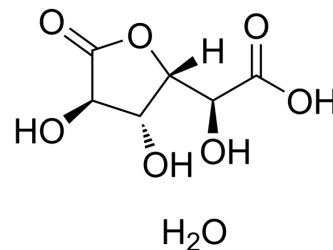


D-Saccharic acid 1,4-lactone hydrate

Cat. No.:	HY-134453A
CAS No.:	61278-30-6
Molecular Formula:	C ₆ H ₁₀ O ₈
Molecular Weight:	210.14
Target:	Others
Pathway:	Others
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (475.87 mM; Need ultrasonic)
 H₂O : ≥ 100 mg/mL (475.87 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.7587 mL	23.7937 mL	47.5873 mL
	5 mM	0.9517 mL	4.7587 mL	9.5175 mL
	10 mM	0.4759 mL	2.3794 mL	4.7587 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (11.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (11.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (11.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

D-Saccharic acid 1,4-lactone hydrate is a potent β-glucuronidase inhibitor (IC₅₀=48.4 μM). D-Saccharic acid 1,4-lactone hydrate can be used as a standard agent compared with novel β-glucuronidase inhibitors. D-Saccharic acid 1,4-lactone hydrate possesses anticarcinogenic, detoxifying, and antioxidant properties^{[1][2]}.

REFERENCES

[1]. Taha M, et al. Synthesis, β -glucuronidase inhibition and molecular docking studies of hybrid bisindole-thiosemicarbazides analogs. *Bioorg Chem.* 2016;68:56-63.

[2]. Bhattacharya S, et al. Prophylactic role of D-Saccharic acid-1,4-lactone in tertiary butyl hydroperoxide induced cytotoxicity and cell death of murine hepatocytes via mitochondria-dependent pathways. *J Biochem Mol Toxicol.* 2011;25(6):341-354.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA