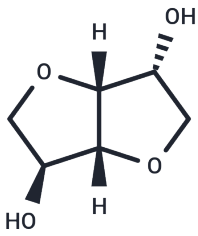
Data Sheet (Cat.No.T6551)

TargetMol

Isosorbide

Chemical Properties



CAS No. : 652-67-5

Formula: C6H10O4

Molecular Weight: 146.14

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Isosorbide (Devicoran) is a heterocyclic compound that is derived from glucose, used as a diuretic.
Targets(IC50)	Others
In vitro	Isosorbide increases urine volume by increasing the amount of osmotically active solute in the urine. Osmotic diuretics also increase the osmolarity of plasma. Isosorbide is used to prevent or treat chest pain (angina). It works by relaxing the blood vessels to the heart, so the blood and oxygen supply to the heart is increased. [1]

Solubility Information

Solubility	DMSO: 237.5 mg/mL (1625.15 mM),Sonication is recommended. H2O: 100 mg/mL (684.28 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (68.43 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (13.69 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.8428 mL	34.2138 mL	68.4275 mL
5 mM	1.3686 mL	6.8428 mL	13.6855 mL
10 mM	0.6843 mL	3.4214 mL	6.8428 mL
50 mM	0.1369 mL	0.6843 mL	1.3686 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

Lee, J., Kim, H., Jung, J., Kim, S., Kim, B., & Kim, K. (2016). Is dehydration test using isosorbide useful in Meniere's disease?. Acta Oto-Laryngologica, 136(11), 1107-1109. doi: 10.1080/00016489.2016.195917