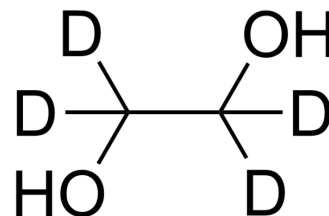


Ethylene glycol-d₄

Cat. No.:	HY-Y0338S2	
CAS No.:	2219-51-4	
Molecular Formula:	C ₂ H ₂ D ₄ O ₂	
Molecular Weight:	66.09	
Target:	Endogenous Metabolite	
Pathway:	Metabolic Enzyme/Protease	
Storage:	Pure form	-20°C 3 years 4°C 2 years
	In solvent	-80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 200 mg/mL (3026.18 mM; Need ultrasonic)
DMSO : 100 mg/mL (1513.09 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		15.1309 mL	75.6544 mL	151.3088 mL
	5 mM		3.0262 mL	15.1309 mL	30.2618 mL
	10 mM		1.5131 mL	7.5654 mL	15.1309 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 (37.83 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (37.83 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (37.83 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ethylene glycol-d₄ is the deuterium labeled Ethylene glycol[1].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

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

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