Glycerol-d_5

Cat. No.: HY-B1659S6

CAS No.: 62502-71-0

Molecular Formula: $C_3H_3D_5O_3$

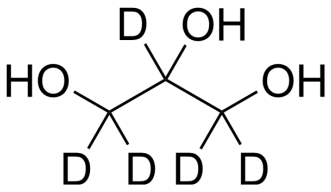
Molecular Weight: 97.12

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

H_2O : 100 mg/mL (1029.65 mM; Need ultrasonic)

DMSO : 100 mg/mL (1029.65 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	10.2965 mL	51.4827 mL	102.9654 mL
5 mM	2.0593 mL	10.2965 mL	20.5931 mL
10 mM	1.0297 mL	5.1483 mL	10.2965 mL

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

BIOLOGICAL ACTIVITY

Description

Glycerol-d_5 is the deuterium labeled Glycerol[1]. Glycerol is used in sample preparation and gel formation for polyacrylamide gel electrophoresis[2][3][4].

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.

[2]. Pennings S, et al. Effect of glycerol on the separation of nucleosomes and bent DNA in low ionic strengthpolyacrylamide gel electrophoresis. Nucleic Acids Res. 1992

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[3]. Yazdani SS, et al. Anaerobic fermentation of glycerol: a path to economic viability for the biofuelsindustry. Curr Opin Biotechnol. 2007 Jun18(3):213-9.

[4]. Huang ZH, et al. Expression and function of P-glycoprotein in rats with glycerol-induced acute renal failure. Eur J Pharmacol. 2000 Oct 20406(3):453-60.

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