D-Galactose-^{13}C

Cat. No.: HY-N0210S

CAS No.: 70849-30-8

Molecular Formula: $C_5{}^{13}CH_{12}O_6$

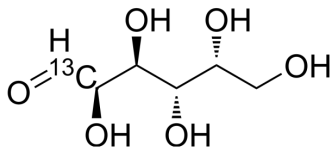
Molecular Weight: 181.15

Target: Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (690.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	5.5203 mL	27.6014 mL	55.2029 mL
	5 mM	1.1041 mL	5.5203 mL	11.0406 mL
	10 mM	0.5520 mL	2.7601 mL	5.5203 mL

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

BIOLOGICAL ACTIVITY

Description

D-Galactose-^{13}C is the ^{13}C labeled D-Galactose. D-Galactose is a natural aldohexose and C-4 epimer of glucose[1][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]. Csiszovszki Z, et al. Structure and function of the D-galactose network in enterobacteria. MBio. 2011 Jun 28;2(4):e00053-11.;Cui X, et al. Chronic systemic D-galactose exposure induces memory loss, neurodegeneration, and oxidativedamage in mice: protectiv

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

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