Product Data Sheet

D-Galactose-13C₆

Cat. No.: HY-N0210S16 CAS No.: 74134-89-7 Molecular Formula: ${}^{13}C_{6}H_{12}O_{6}$ Molecular Weight: 186.11

Target: **Endogenous Metabolite** Pathway: Metabolic Enzyme/Protease

Storage: Powder -20°C 3 years 2 years In solvent -80°C 6 months

> -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

H₂O: 250 mg/mL (1343.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	5.3732 mL	26.8658 mL	53.7317 mL
	5 mM	1.0746 mL	5.3732 mL	10.7463 mL
	10 mM	0.5373 mL	2.6866 mL	5.3732 mL

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

BIOLOGICAL ACTIVITY

Description	D-Galactose- 13 C ₆ is the deuterium labeled D-Galactose (HY-N0210). D-Galactose is a natural aldohexose and C-4 epimer of glucose[1][2].
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 $\text{drug}^{[1]}$. 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;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.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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