L-Tryptophan-d₃

Cat. No.: HY-N0623S9 CAS No.: 133519-78-5 Molecular Formula: $C_{11}H_9D_3N_2O_2$ Molecular Weight: 207.24

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

-20°C Storage: Powder 3 years

> 2 years In solvent -80°C 6 months

> > -20°C 1 month

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro DMSO: 7.69 mg/mL (37.11 mM; Need ultrasonic)

> H₂O: 5 mg/mL (24.13 mM; ultrasonic and warming and heat to 60°C) H₂O: 5 mg/mL (24.13 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.8253 mL	24.1266 mL	48.2532 mL
	5 mM	0.9651 mL	4.8253 mL	9.6506 mL
	10 mM	0.4825 mL	2.4127 mL	4.8253 mL

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

BIOLOGICAL ACTIVITY

Description L-Tryptophan- d_3 is the deuterium labeled L-Tryptophan. L-Tryptophan (Tryptophan) is an essential amino acid that is the precursor of serotonin, melatonin, and vitamin B3[1].

> 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

In Vitro

[1]. Slominski A, et al. Conversion of L-tryptophan to serotonin and melatonin in human melanoma cells. FEBS Lett. 2002 Jan 30;511(1-3):102-6.

		_
2]. Russak EM, et al. Impact of	Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.	
	Caution: Product has not been fully validated for medical applications. For research use only.	
	Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA	

Page 2 of 2 www.MedChemExpress.com