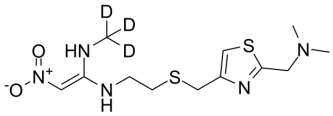
Nizatidine-d_3

Cat. No.:	HY-B0310S
CAS No.:	1246833-99-7
Molecular Formula:	$C_{12}H_{18}D_3N_5O_2S_2$
Molecular Weight:	334.48
Target:	Histamine Receptor
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (149.49 mM)

H2O : 20 mg/mL (59.79 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.9897 mL	14.9486 mL	29.8972 mL
5 mM	0.5979 mL	2.9897 mL	5.9794 mL
10 mM	0.2990 mL	1.4949 mL	2.9897 mL

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

BIOLOGICAL ACTIVITY

Description

Nizatidine-d_3 is the deuterium labeled Nizatidine. Nizatidine is a potent and orally active histamine H2 receptor antagonist, can be used for the research of stomach and intestines ulcers. Nizatidine works by decreasing the secretion of gastric acid the stomach makes and prevent ulcers from coming back after they have healed in animal models[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;53(2):211-216.

[2]. T M Lin, et al. Actions of nizatidine, a selective histamine H2-receptor antagonist, on gastric acid secretion in dogs, rats and frogs. J Pharmacol Exp Ther. 1986 Nov;239(2):406-10.

[3]. Shen Li, et al. Abstract 4004: The H2 receptor antagonist nizatidine inhibits carcinogenesis in two rodent models of hepatocellular carcinoma. Tumor Biology. Cancer research.

[4]. Ahmed S. Alazzouni, et al. Comparative histological and histochemical studies between ranitidine and nizatidine in treatment of peptic ulcer with evaluation of their adverse effects on male sex hormones. The Journal of Basic and Applied Zoology volume

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