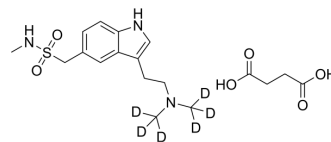


Sumatriptan-d₆ succinate

Cat. No.:	HY-B0121BS
CAS No.:	1215621-31-0
Molecular Formula:	C ₁₈ H ₂₁ D ₆ N ₃ O ₆ S
Molecular Weight:	419.53
Target:	5-HT Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (238.36 mM; Need ultrasonic and warming)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.3836 mL	11.9181 mL	23.8362 mL	
5 mM	0.4767 mL	2.3836 mL	4.7672 mL	
10 mM	0.2384 mL	1.1918 mL	2.3836 mL	

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

BIOLOGICAL ACTIVITY

Description

Sumatriptan-d₆ succinate is the deuterium labeled Sumatriptan succinate. Sumatriptan succinate is an orally active 5-HT₁ receptor agonist with K_s of 17 nM, 27 nM and 100 nM for 5-HT_{1D}, 5-HT_{1B} and 5-HT_{1A} receptors, respectively. Sumatriptan succinate can be used for migraine headache research^{[1][2][3]}.

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]. S J Peroutka, et al. Sumatriptan (GR 43175) interacts selectively with 5-HT_{1B} and 5-HT_{1D} binding sites. *Eur J Pharmacol*. 1989 Apr 12;163(1):133-6.

[3]. K L Dechant, et al. Sumatriptan. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic efficacy in the acute treatment of migraine and cluster headache. *Drugs*. 1992 May;43(5):776-98.

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

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