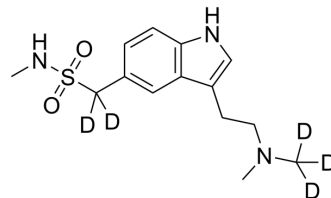


Sumatriptan-d₅

Cat. No.:	HY-B0121BS2
Molecular Formula:	C ₁₄ H ₁₆ D ₅ N ₃ O ₂ S
Molecular Weight:	300.43
Target:	5-HT Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Sumatriptan-d ₅ is deuterated labeled Sumatriptan (HY-B0121B). Sumatriptan (GR 43175) is an orally active 5-HT ₁ receptor agonist with IC ₅₀ s of 7.3 nm, 9.3nm and 17.8 nm for 5-HT _{1D} , 5-HT _{1B} and 5-HT _{1F} receptors, respectively. Sumatriptan can be used for migraine headache research ^{[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.
In Vivo	Sumatriptan (600 µg/kg, i.p. or 0.06 µg in 5 µL, i.t.) reverses nitroglycerin-induced thermal hypersensitivity in mice ^[5] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [2]. Razaque Z, et al. Vasoconstriction in human isolated middle meningeal arteries: determining the contribution of 5-HT_{1B}- and 5-HT_{1F}-receptor activation. *Br J Clin Pharmacol*. 1999 Jan;47(1):75-82.
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- [4]. Bates EA, et al. Sumatriptan alleviates nitroglycerin-induced mechanical and thermal allodynia in mice. *Cephalalgia*. 2010 Feb;30(2):170-8.
- [5]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;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