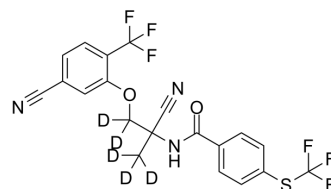


(Rac)-Monepantel-d5

Cat. No.:	HY-14774S
CAS No.:	2747918-33-6
Molecular Formula:	C ₂₀ H ₈ D ₅ F ₆ N ₃ O ₂ S
Molecular Weight:	478.42
Target:	nAChR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(Rac)-Monepantel-d5 is deuterium labeled Monepantel. Monepantel is organic anthelmintic, and acts as a positive allosteric modulator of a nematode-specific clade of nicotinic acetylcholine receptor (nAChR) subunits.
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]. Bahrami F, et al. Monepantel induces autophagy in human ovarian cancer cells through disruption of the mTOR/p70S6K signalling pathway. *Am J Cancer Res*. 2014 Sep 6;4(5):558-71.
- [3]. Hess J, et al. Assessment of the nematocidal activity of metallocenyl analogues of monepantel. *Dalton Trans*. 2016 Nov 28;45(44):17662-17671
- [4]. Raza A, et al. Increased expression of ATP binding cassette transporter genes following exposure of *Haemonchus contortus* larvae to a high concentration of monepantel in vitro. *Parasit Vectors*. 2016 Sep 29;9(1):522.
- [5]. Stuchlikova, et al. Monepantel induces hepatic cytochromes p450 in sheep in vitro and in vivo. *Chem Biol Interact*. 2015 Feb 5;227:63-8. ?

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

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