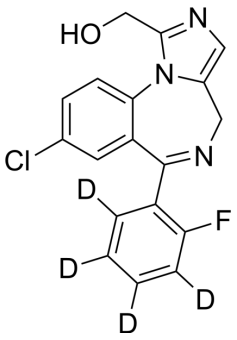
1'-Hydroxymidazolam-d_4

Cat. No.:	HY-118645S
CAS No.:	1781843-10-4
Molecular Formula:	$C_{18}H_9D_4ClFN_3O$
Molecular Weight:	345.79
Target:	Drug Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	1'-Hydroxymidazolam-d_4 is the deuterium labeled 1'-Hydroxymidazolam. 1'-Hydroxymidazolam is a primary active metabolite of Midazolam, and it is a neuronal depressant agent. 1'-Hydroxymidazolam could inhibit neuronal activity add to the effects of Midazolam[1][2].
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[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hasegawa T, et, al. Increase in the systemic exposure of primary metabolites of Midazolam in rat arising from CYP inhibition or hepatic dysfunction. Drug Metab Pharmacokinet. 2017 Feb; 32(1): 69-76.

[2]. Balk M, et, al. Differential depression of neuronal network activity by midazolam and its main metabolite 1-hydroxymidazolam in cultured neocortical slices. Sci Rep. 2017 Jun 14; 7(1): 3503.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

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