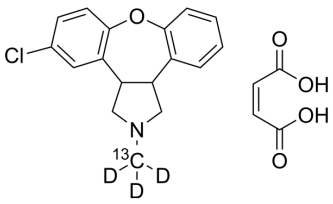
Asenapine-$^{13}C,d_3$

Cat. No.:	HY-10121S2
CAS No.:	2747915-30-4
Molecular Formula:	$C_{20}{}^{13}CH_{17}D_3ClNO_5$
Molecular Weight:	405.85
Target:	Adrenergic Receptor; Histamine Receptor; 5-HT Receptor; Dopamine Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Immunology/Inflammation; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Asenapine-$^{13}C,d_3$ is ^{13}C and deuterated labeled Asenapine (HY-10121). Asenapine (Org 5222), an atypical antipsychotic, is an antagonist of serotonin receptors (pK_i: 8.4-10.5), adrenoceptors (pK_i: 8.9-9.5), dopamine receptors (pK_i: 8.9-9.4) and histamine receptors (pK_i: 8.2-9.0). Asenapine can be used in the research of schizophrenia and bipolar disorder[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[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Asenapine (0.05-0.2 mg/kg; s.c.) induces a dose-dependent suppression of conditioned avoidance response (CAR) and does not induce catalepsy[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. M Shahid, et al. Asenapine: a novel psychopharmacologic agent with a unique human receptor signature. J Psychopharmacol. 2009 Jan;23(1):65-73.

[2]. Olivia Frånberg, et al. Asenapine, a novel psychopharmacologic agent: preclinical evidence for clinical effects in schizophrenia. Psychopharmacology (Berl). 2008 Feb;196(3):417-29.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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