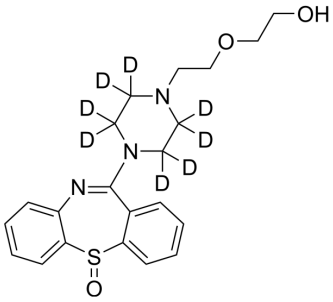
Quetiapine Sulfoxide-d_8

Cat. No.:	HY-G0014S
CAS No.:	1330238-38-4
Molecular Formula:	$C_{21}H_{17}D_8N_3O_3S$
Molecular Weight:	407.56
Target:	Drug Metabolite; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Quetiapine Sulfoxide-d_8 is the deuterium labeled Quetiapine sulfoxide. Quetiapine sulfoxide (Quetiapine S-oxide) is a main metabolite of Quetiapinem. Quetiapine is a second-generation antipsychotic[1]. Quetiapine is a 5-HT receptors agonist and a dopamine receptor antagonist[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.

REFERENCES

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

[2]. Remmerie B, et al. Comparison of Capillary and Venous Drug Concentrations After Administration of a Single Dose of Risperidone, Paliperidone, Quetiapine, Olanzapine, or Aripiprazole. Clin Pharmacol Drug Dev. 2016 Nov;5(6):528-537.

[3]. Cross AJ, et al. Quetiapine and its metabolite norquetiapine: translation from in vitro pharmacology to in vivo efficacy in rodent models. Br J Pharmacol. 2016 Jan;173(1):155-66.

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