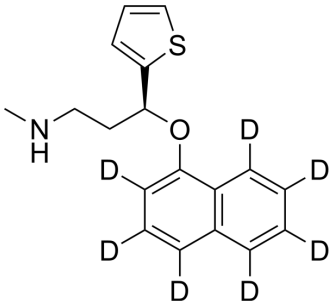
Duloxetine-d_7

Cat. No.:	HY-B0161S
CAS No.:	919514-01-5
Molecular Formula:	$C_{18}H_{12}D_7NOS$
Molecular Weight:	304.46
Target:	Serotonin Transporter; Isotope-Labeled Compounds
Pathway:	Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Duloxetine-d_7 ((S)-Duloxetine-d_7) is the deuterium labeled Duloxetine. Duloxetine is a serotonin-norepinephrine reuptake inhibitor with a Ki of 4.6 nM, used for treatment of major depressive disorder and generalized anxiety disorder (GAD)[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]. De Berardis, D., et al., The effect of newer serotonin-noradrenalin antidepressants on cytokine production: a review of the current literature. Int J Immunopathol Pharmacol, 2010. 23(2): p. 417-22.

[3]. Wang, S.Y., J. Calderon, and G. Kuo Wang, Block of neuronal Na+ channels by antidepressant duloxetine in a state-dependent manner. Anesthesiology, 2010. 113(3): p. 655-65.

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