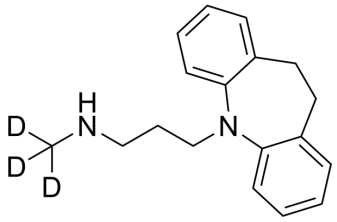
Desipramine-d_3

Cat. No.:	HY-B1272AS1
CAS No.:	65100-49-4
Molecular Formula:	$C_{18}H_{19}D_3N_2$
Molecular Weight:	269.4
Target:	Dopamine Transporter; Serotonin Transporter
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Desipramine-d_3 is the deuterium labeled Desipramine. Desipramine is a tricyclic psychotic compound, possessing antidepressant activity. Desipramine inhibits the norepinephrine reuptake receptor in the central nervous system and reduces the sleep-related loss of genioglossus activity, can be used to research the improvement of pharyngeal collapsibility[1][2][3].
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]. Garcia AS, et al. Autoreceptor-mediated inhibition of norepinephrine release in rat medial prefrontal cortex is maintained after chronic desipramine treatment. J Neurochem. 2004 Nov;91(3):683-93.

[2]. Taranto-Montemurro L, et al. Desipramine improves upper airway collapsibility and reduces OSA severity in patients with minimal muscle compensation. Eur Respir J. 2016 Nov;48(5):1340-1350.

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

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