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Produktinformation



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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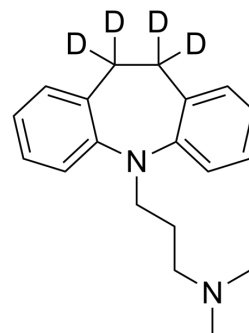
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Imipramine-d₄-1

Cat. No.:	HY-B1490AS3
CAS No.:	773801-61-9
Molecular Formula:	C ₁₉ H ₂₀ D ₄ N ₂
Molecular Weight:	284.43
Target:	Autophagy; Serotonin Transporter; Apoptosis; Isotope-Labeled Compounds
Pathway:	Autophagy; Neuronal Signaling; Apoptosis; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Imipramine-d₄-1 is the deuterium labeled Imipramine (HY-W010179). Imipramine is an orally active tertiary amine tricyclic antidepressant. Imipramine is a Fascin1 inhibitor with antitumor activities. Imipramine also inhibits serotonin transporter with an IC₅₀ value of 32 nM. Imipramine stimulates U-87MG glioma cells autophagy and induces HL-60 cell apoptosis. Imipramine shows neuroprotective and immunomodulatory effects^{[1][2][3][4][5]}.

REFERENCES

- [1]. Balkovetz DF, et al. Evidence for an imipramine-sensitive serotonin transporter in human placental brush-border membranes. J Biol Chem. 1989 Feb 5;264(4):2195-8.
- [2]. Albuquerque-González B, et al. New role of the antidepressant imipramine as a Fascin1 inhibitor in colorectal cancer cells. Exp Mol Med. 2020 Feb;52(2):281-292.
- [3]. Jeon SH, et al. The tricyclic antidepressant imipramine induces autophagic cell death in U-87MG glioma cells. Biochem Biophys Res Commun. 2011 Sep 23;413(2):311-7.
- [4]. Xia Z, et al. The antidepressants imipramine, clomipramine, and citalopram induce apoptosis in human acute myeloid leukemia HL-60 cells via caspase-3 activation. J Biochem Mol Toxicol. 1999;13(6):338-47.
- [5]. Ramirez K, et al. Imipramine attenuates neuroinflammatory signaling and reverses stress-induced social avoidance. Brain Behav Immun. 2015 May;46:212-20.

Caution: Product has not been fully validated for medical applications. For research use only.

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