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Product Information

Product ID R3586

CAS No. 129101-54-8

Chemical Name (2R,3R)-2,3-dihydroxybutanedioic acid;[3-[(1S)-1-(dimethylamino)

ethyl]phenyl] N-ethyl-N-methylcarbamate

Synonym

Formula $C_{14}H_{22}N_2O_2 \cdot C_4H_6O_6$

Formula Wt. 400.43 Melting Point 123-125°C

> Purity ≥99% Solubility

Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
R3586	25 mg	\$112.60
R3586	100 mg	\$225.30
R3586	250 mg	\$451.00
R3586	1 a	\$1352.30

Store Temp Ambient

Ship Temp Ambient

Description Rivastigmine is an inhibitor of acetylcholinesterase (AChE) and butylcholinesterase (BChE) that is used clinically to treat dementia. Rivastigmine exhibits anti-cholinergic, anti-inflammatory, cognition enhancing and neuroprotective activities. In vivo, rivastigmine improves memory impairment in a CaMKII-dependent manner. Rivastigmine also decreases production of IL-1β in vivo. In vitro, this compound displays benefit against Alzheimer's disease, increasing secretion of amyloid-β (Aβ) precursor protein (APP) and decreasing secretion of Aβ through modulation of α-secretase signaling.

Wu J, Tan Z, Pistolozzi M, et al. Rivastigmine-bambuterol hybrids as selective butyrylcholinesterase inhibitors. Molecules. 2023 Dec 22;29(1):72. PMID: 38202655.

Moriguchi S, Tagashira H, Sasaki Y, et al. CaMKII activity is essential for improvement of memory-related behaviors by chronic rivastigmine treatment. J Neurochem. 2013 Oct 28. [Epub ahead of print]. PMID: 24164423.

Bailey JA, Ray B, Greig NH, et al. Rivastigmine lowers Aβ and increases sAPPα levels, which parallel elevated synaptic markers and metabolic activity in degenerating primary rat neurons. PLoS One. 2011;6(7):e21954. PMID:

Pollak Y, Gilboa A, Ben-Menachem O, et al. Acetylcholinesterase inhibitors reduce brain and blood interleukin -1beta production. Ann Neurol. 2005 May;57(5):741-5. PMID: 15852394.

Krall WJ, Sramek JJ, Cutler NR. Cholinesterase inhibitors: a therapeutic strategy for Alzheimer disease. Ann Pharmacother. 1999 Apr;33(4):441-50. PMID: 10332536.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.