

Product Data Sheet

Product Name: Rivastigmine

Cat. No.: GC10267

Chemical Properties

Cas. No. 123441-03-2

Chemical Name [3-[(1S)-1-(dimethylamino)ethyl]phenyl] N-ethyl-N-methylcarbamate

SMILES CCN(C)C(=O)OC1=CC=CC(=C1)C(C)N(C)C

Formula $C_{14}H_{22}N_2O_2$ M.Wt 250.34

Solubility ≥ 12.5 mg/mL in DMSO, ≥ 92.8 mg/mL in EtOH with ultrasonic, ≥ 23.6 mg/mL in Water with ultrasonic
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

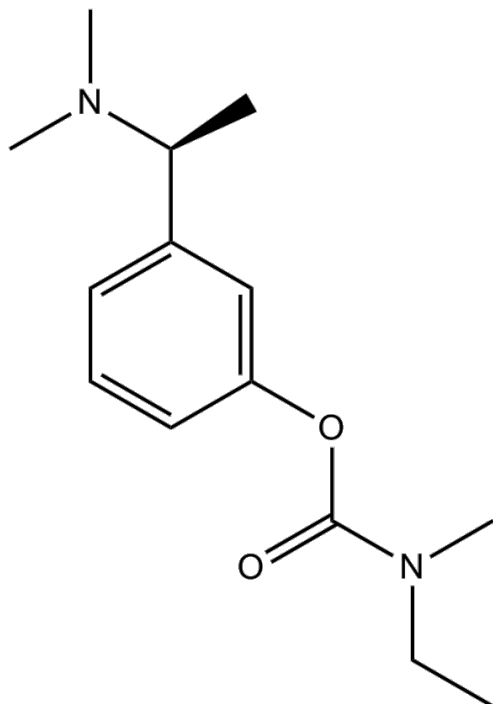
Caution: Product has not been fully validated for medical applications. For research use only.

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Structure



Background

Rivastigmine, an cholinesterase inhibitor (IC₅₀ = 5.5 μM), inhibits both butyrylcholinesterase and acetylcholinesterase. IC₅₀ value: 5.5 μM. Target: AChE. Rivastigmine is a parasympathomimetic or cholinergic agent for the treatment of mild to moderate dementia of the Alzheimer's type and dementia due to Parkinson's disease. The drug can be administered orally or via a transdermal patch; the latter form reduces the prevalence of side effects, which typically include nausea and vomiting. The drug is eliminated through the urine, and appears to have relatively few drug-drug interactions. Rivastigmine, a cholinesterase inhibitor, inhibits both butyrylcholinesterase and acetylcholinesterase. It is thought to work by inhibiting these cholinesterase enzymes, which would otherwise break down the brain chemical acetylcholine.

References:

[1]. Kurz A, Farlow M, Lefèvre G. Pharmacokinetics of a novel transdermal rivastigmine patch for the treatment of Alzheimer's disease: a review. *Int J Clin Pract.* 2009 May;63(5):799-805.

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- [2]. Polinsky RJ. Clinical pharmacology of rivastigmine: a new-generation acetylcholinesterase inhibitor for the treatment of Alzheimer's disease. Clin Ther. 1998 Jul-Aug;20(4):634-47.
- [3]. Stryjer R, Ophir D, Bar F et al. Rivastigmine treatment for the prevention of electroconvulsive therapy-induced memory deficits in patients with schizophrenia. Clin Neuropharmacol. 2012 Jul-Aug;35(4):161-4.
- [4]. Han HJ, Lee JJ, Park SA et al. Efficacy and safety of switching from oral cholinesterase inhibitors to the rivastigmine transdermal patch in patients with probable Alzheimer's disease. J Clin Neurol. 2011 Sep;7(3):137-42.

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