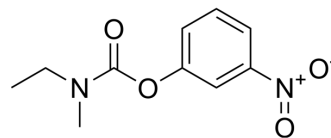


Rivastigmine carbamate impurity

Cat. No.:	HY-133776		
CAS No.:	1346242-31-6		
Molecular Formula:	C ₁₀ H ₁₂ N ₂ O ₄		
Molecular Weight:	224.21		
Target:	Cholinesterase (ChE)		
Pathway:	Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (446.01 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
Preparing Stock Solutions	1 mM	4.4601 mL	22.3005 mL	44.6010 mL
	5 mM	0.8920 mL	4.4601 mL	8.9202 mL
	10 mM	0.4460 mL	2.2301 mL	4.4601 mL
Please refer to the solubility information to select the appropriate solvent.				
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution 			

BIOLOGICAL ACTIVITY

Description	Rivastigmine carbamate impurity (3-Nitrophenyl ethyl(methyl)carbamate) is an impurity of Rivastigmine. Rivastigmine is an orally active and potent cholinesterase (ChE) inhibitor and inhibits butyrylcholinesterase (BChE) and acetylcholinesterase (AChE) with IC ₅₀ s of 0.037 μM, 4.15 μM, respectively ^{[1][2]} .
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REFERENCES

[1]. Ziwei Chen, et al. Discovery of novel rivastigmine-hydroxycinnamic acid hybrids as multi-targeted agents for Alzheimer's disease. Eur J Med Chem. 2017 Jan 5;125:784-792.

[2]. Qian-Sheng Yu, et al. Anticholinesterase activity of compounds related to geneserine tautomers. N-Oxides and 1,2-oxazines. J Med Chem. 2002 Aug 15;45(17):3684-91.

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

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