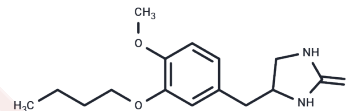


Ro 20-1724

Chemical Properties

CAS No. :	29925-17-5
Formula:	C ₁₅ H ₂₂ N ₂ O ₃
Molecular Weight:	278.35
Appearance:	Solid
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Ro 20-1724 (4-(3-Butoxy-4-methoxybenzyl)-2-imidazolidinone) is a widely used inhibitor of cyclic nucleotide phosphodiesterase with IC ₅₀ of 2.0 μM and K _i of 3.1 μM.
Targets(IC ₅₀)	PDE
In vivo	RO-20-1724 was found to not only improve learning and memory in MWM and PA paradigms but also restore STZ induced elevation in cholinesterase activity. Further, RO-20-1724 significantly reduced malondialdehyde and nitrite levels, and restored the glutathione levels indicating attenuation of oxidative stress[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (179.63 mM),Sonication is recommended. Ethanol: 50 mg/mL (179.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5926 mL	17.963 mL	35.926 mL
5 mM	0.7185 mL	3.5926 mL	7.1852 mL
10 mM	0.3593 mL	1.7963 mL	3.5926 mL
50 mM	0.0719 mL	0.3593 mL	0.7185 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Reeves ML, Leigh BK, England PJ. The identification of a new cyclic nucleotide phosphodiesterase activity in human and guinea-pig cardiac ventricle. Implications for the mechanism of action of selective phosphodiesterase inhibitors. *Biochem J.* 1987 Jan 15;241(2):535-41.

Sharma V, et al. Neuroprotective effect of RO-20-1724-a phosphodiesterase4 inhibitor against intracerebroventricular streptozotocin induced cognitive deficit and oxidative stress in rats. *Pharmacol Biochem Behav.* 2012;101(2):239-245.

Morrison MR, Hall CL, Pardue S, Brodeur R, Baskin F, Rosenberg RN. The synthesis and degradation of poly(a)-containing mRNAs in mouse neuroblastoma cells treated with dibutyryl cAMP or with Ro20-1724. *J Neurochem.* 1980 Jan;34(1):50-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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