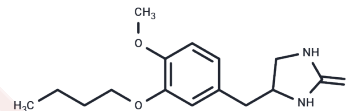


Ro 20-1724

Chemical Properties

CAS No. : 29925-17-5
 Formula: C₁₅H₂₂N₂O₃
 Molecular Weight: 278.35
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



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: 150 mg/mL (538.89 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)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.19 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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.

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