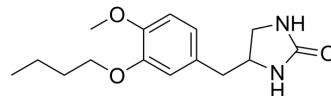


Ro 20-1724

Cat. No.:	HY-100927
CAS No.:	29925-17-5
Molecular Formula:	C ₁₅ H ₂₂ N ₂ O ₃
Molecular Weight:	278.35
Target:	Phosphodiesterase (PDE)
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : ≥ 50 mg/mL (179.63 mM) * "≥" means soluble, but saturation unknown.										
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th>Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Solvent Concentration	Mass	1 mg	5 mg	10 mg					
	Solvent Concentration		Mass	1 mg	5 mg	10 mg					
	Preparing Stock Solutions										
1 mM	3.5926 mL	17.9630 mL	35.9260 mL								
5 mM	0.7185 mL	3.5926 mL	7.1852 mL								
10 mM	0.3593 mL	1.7963 mL	3.5926 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 (8.98 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution 										

BIOLOGICAL ACTIVITY

Description	Ro 20-1724 (Ro 20-174) is a potent inhibitor of cAMP-specific phosphodiesterase (PDE4/PDE IV) with a K _i of 1930 nM. Neuroprotective effect ^{[1][2]} .
IC₅₀ & Target	PDE4 1930 nM (K _i)
In Vivo	Ro 20-1724 (125, 250 and 500 µg/kg; i.p.; 21 days following first i.c.v. streptozotocin administration; 200-250 g adult (3-5 months old) male albino Wistar rats) significantly attenuated streptozotocin induced cognitive deficit and oxidative stress ^[2] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Brackeen MF, et al. Design and synthesis of conformationally constrained analogues of 4-(3-butoxy-4-methoxybenzyl)imidazolidin-2-one (Ro 20-1724) as potent inhibitors of cAMP-specific phosphodiesterase. *J Med Chem.* 1995;38(24):4848-4854.
- [2]. 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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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