

CR4056

Chemical Properties

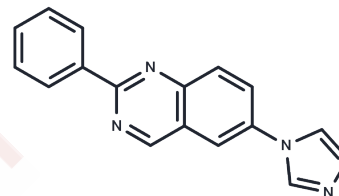
CAS No. : 1004997-71-0

Formula: C17H12N4

Molecular Weight: 272.3

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	CR4056 (6-(1H-imidazol-1-yl)-2-phenylquinazoline) is a selective inhibitor of MAO-A with IC50 of 202.7 nM and a ligand of I2-imidazoline receptor with IC50 of 596 nM.
Targets(IC50)	MAO, Imidazoline Receptor
In vitro	The co-treatment of CR4056 (3-30 μ M) with Bortezomib does not induce any significant difference in cell survival compared with BTZ-treated cells, either in H929 or in RPMI 8226 myeloma cells[1].
In vivo	CR4056 (30 mg/kg) completely reverses the effect of capsaicin, increasing the paw withdrawal threshold (PWT) to 239. CR4056 obviously increases the mechanical withdrawal thresholds of both ipsilateral (F[4, 30]=19.97) and contralateral (F[4, 30]=31.58) hind paws. CR4056 dose-dependently reduces mechanical hyperalgesia with ED50 of 5.8 mg/kg. CR4056 dose-dependently decreases streptozotocin (STZ)-induced diabetic pain in rats (F[4, 35]=31.27). CR4056 (20 mg/kg; oral) increases endogenous norepinephrine (NE) levels by 68.2% in the parieto-occipital cortex. CR4056 (20 mg/kg; p.o.) obviously increases NE levels both in the cerebral cortex (63.1%) and in the lumbar spinal cord (51.3%). CR4056 (10 mg/kg) and Piroxicam (10 mg/kg) obviously reverse the decrease in the withdrawal threshold caused by Capsaicin[2].

Solubility Information

Solubility	DMSO: 45 mg/mL (165.26 mM), Sonication is recommended. H2O: < 0.1 mg/mL (insoluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6724 mL	18.3621 mL	36.7242 mL
5 mM	0.7345 mL	3.6724 mL	7.3448 mL
10 mM	0.3672 mL	1.8362 mL	3.6724 mL
50 mM	0.0734 mL	0.3672 mL	0.7345 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

Meregalli C, et al. CR4056, a new analgesic I2 ligand, is highly effective against bortezomib-induced painful neuropathy in rats. *J Pain Res.* 2012;5:151-67.

Ferrari F, et al. Analgesic efficacy of CR4056, a novel imidazoline-2 receptor ligand, in rat models of inflammatory and neuropathic pain. *J Pain Res.* 2011;4:111-25.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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