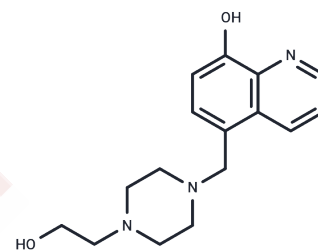


VK-28

Chemical Properties

CAS No. : 312611-92-0
 Formula: C₁₆H₂₁N₃O₂
 Molecular Weight: 287.36
 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	VK-28 is a brain permeable iron chelator with neuroprotection. VK-28 inhibits basal as well as iron-induced mitochondrial lipid peroxidation.
Targets(IC50)	Ferroptosis, Mitochondrial Metabolism, Lipid
In vitro	VK-28 inhibited both basal and Fe/ascorbate induced mitochondrial membrane lipid peroxidation, with an IC ₅₀ of 12.7 microM comparable to that of the prototype iron chelator, desferal, which does not cross the blood brain barrier[1].
In vivo	VK-28(1 microg; i.c.v.) was able to completely protect against ICV 6-OHDA (250 microg) induced striatal dopaminergic lesion, as measured by dopamine (DA), dihydroxyphenylacetic acid (DOPAC) and homovanilic acid (HVA) levels. VK-28 (1 and 5 mg/kg; i.p.) daily for 10 and 7 days, respectively, demonstrated significant neuroprotection against ICV 6-OHDA at the higher dose, with 68% protection against loss of dopamine at 5mg/kg dosage of VK-28[1].

Solubility Information

Solubility	DMSO: 45 mg/mL (156.6 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	3.480 mL	17.3998 mL	34.7996 mL
5 mM	0.696 mL	3.480 mL	6.9599 mL
10 mM	0.348 mL	1.740 mL	3.480 mL
50 mM	0.0696 mL	0.348 mL	0.696 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

Shachar DB, et al. Neuroprotection by a novel brain permeable iron chelator, VK-28, against 6-hydroxydopamine lesion in rats. *Neuropharmacology*. 2004 Feb;46(2):254-63.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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