

Manganese(salen) chloride

Chemical Properties

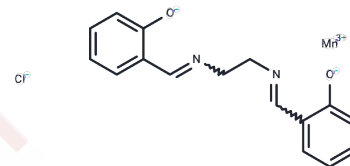
CAS No. : 53177-12-1

Formula: C₁₆H₁₄ClMnN₂O₂

Molecular Weight: 356.69

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	Manganese(salen) chloride (EUK-8) is a superoxide dismutase and catalase mimetic, serving as an antioxidant with oxyradical scavenging properties, and ameliorates acute lung injury in endotoxemic swine.
Targets(IC50)	Reactive Oxygen Species, ROS, CAT
In vitro	Manganese(salen) chloride (25 μM; 24-72 h) protects organotypic hippocampal slices from β-AP-induced neurotoxicity, completely blocking β-AP-induced free radical accumulation and lipid peroxidation [2].
In vivo	Manganese(salen) chloride (25 mg/kg; i.p. 3 times a week for 4 weeks) reduces cardiac oxidative stress and ameliorates pressure overload-induced heart failure in the harlequin mouse mutant [3]. In Wild-type (WT) and harlequin (Hq) B6CBA male and female mice, this treatment prevented myocardial oxidant damage, improved survival, prevented functional and geometrical deterioration, and attenuated necrotic and apoptotic cell death, as well as cardiac hypertrophy and fibrosis. This antioxidant treatment protected both the oxidative stress-prone Hq mouse model and WT mice against pressure overload-induced maladaptive left ventricular remodeling and cardiac decompensation, suggesting its potential as a novel therapeutic tool for human heart failure.

Solubility Information

Solubility	DMSO: 2.5 mg/mL (7.01 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	2.8036 mL	14.0178 mL	28.0355 mL
5 mM	0.5607 mL	2.8036 mL	5.6071 mL
10 mM	0.2804 mL	1.4018 mL	2.8036 mL
50 mM	0.0561 mL	0.2804 mL	0.5607 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

Gonzalez PK, et, al. EUK-8, a synthetic superoxide dismutase and catalase mimetic, ameliorates acute lung injury in endotoxemic swine. *J Pharmacol Exp Ther.* 1995 Nov;275(2):798-806.

Bruce AJ, et, al. beta-Amyloid toxicity in organotypic hippocampal cultures: protection by EUK-8, a synthetic catalytic free radical scavenger. *Proc Natl Acad Sci U S A.* 1996 Mar 19;93(6):2312-6.

Empel VPM, et, al. EUK-8, a superoxide dismutase and catalase mimetic, reduces cardiac oxidative stress and ameliorates pressure overload-induced heart failure in the harlequin mouse mutant. *J Am Coll Cardiol.* 2006 Aug 15;48(4):824-32.

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