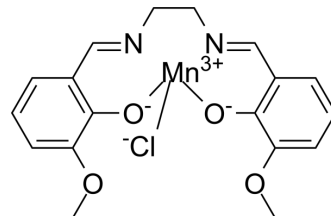


EUK-134

Cat. No.:	HY-100594
CAS No.:	81065-76-1
Molecular Formula:	C ₁₈ H ₁₈ ClMnN ₂ O ₄
Molecular Weight:	416.74
Target:	NF-κB
Pathway:	NF-κB
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 10 mg/mL (24.00 mM); ultrasonic and warming and heat to 80°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.3996 mL	11.9979 mL	23.9958 mL	
5 mM	0.4799 mL	2.3996 mL	4.7992 mL	
10 mM	0.2400 mL	1.1998 mL	2.3996 mL	

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

EUK-134, a synthetic superoxide dismutase and catalase mimetic, protects rat kidneys from ischemia-reperfusion-induced damage. EUK-134 is a superoxide dismutase (SOD) mimetics (SODm) with catalase activity. EUK-134 is a mitoprotective antioxidant. EUK-134 reduces the expression of NF-κB, MDA level, and protein carbonylation in H9C2 cells^{[1][2][3]}.

IC₅₀ & Target

NF-κB

In Vitro

EUK-134 (10-300 μM) is able to improve cell viability and reduces Paraquat (1 mM)-induced cell death significantly via dismutation or scavenging of superoxide anions and reduces hydroxyl radical generation^[2]. Higher concentrations of EUK-134 alone (30-300 μM) produces modest but significant reductions in cellular viability; however, this effect is not reflected in cell death measurements made at these concentrations^[2]. EUK-134 is a salen-manganese complex with superoxide dismutase and catalase activity. Supplementation with EUK-134 is therefore identified as a novel approach to attenuate cardiac hypertrophy and lends scope for the development of EUK-134 as a therapeutic agent in the management of human cardiovascular disease. EUK-134 is a mitoprotective antioxidant with Mn-superoxide dismutase (Mn SOD) and catalase activity^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay^[2]

Cell Line:	NRK-52E cells
Concentration:	0, 1, 3, 10, 30, 100, and 300 μ M
Incubation Time:	24 hours
Result:	Co-incubation with Paraquat (1 mM) and increasing concentrations of EUK-134 (1-300 μ M) resulted in a significant reduction in paraquat-induced cellular injury and death at 100 and 300 μ M.

REFERENCES

- [1]. P Gianello, et al. EUK-134, a synthetic superoxide dismutase and catalase mimetic, protects rat kidneys from ischemia-reperfusion-induced damage. *Transplantation*. 1996 Dec 15;62(11):1664-6.
- [2]. Mohamed Samai, et al. Comparison of the effects of the superoxide dismutase mimetics EUK-134 and tempol on paraquat-induced nephrotoxicity. *Free Radic Biol Med*. 2007 Aug 15;43(4):528-34.
- [3]. Sreeja Purushothaman, et al. Mitoprotective antioxidant EUK-134 stimulates fatty acid oxidation and prevents hypertrophy in H9C2 cells. *Mol Cell Biochem*. 2016 Sep;420(1-2):185-94.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA