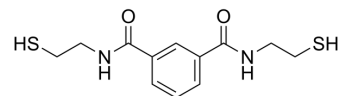


Emeramide

Cat. No.:	HY-16739
CAS No.:	351994-94-0
Molecular Formula:	C ₁₂ H ₁₆ N ₂ O ₂ S ₂
Molecular Weight:	284.4
Target:	Reactive Oxygen Species; Cuproptosis
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Apoptosis
Storage:	Powder -20°C 3 years 4°C 2 years



* The compound is unstable in solutions, freshly prepared is recommended.

SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (351.62 mM; Need ultrasonic and warming)																					
	H ₂ O : < 0.1 mg/mL (insoluble)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>3.5162 mL</td> <td>17.5809 mL</td> <td>35.1617 mL</td> </tr> <tr> <td>5 mM</td> <td>0.7032 mL</td> <td>3.5162 mL</td> <td>7.0323 mL</td> </tr> <tr> <td>10 mM</td> <td>0.3516 mL</td> <td>1.7581 mL</td> <td>3.5162 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	3.5162 mL	17.5809 mL	35.1617 mL	5 mM	0.7032 mL	3.5162 mL	7.0323 mL	10 mM	0.3516 mL	1.7581 mL	3.5162 mL
	Solvent			Mass	Concentration																	
1 mg		5 mg	10 mg																			
Preparing Stock Solutions	1 mM	3.5162 mL	17.5809 mL	35.1617 mL																		
	5 mM	0.7032 mL	3.5162 mL	7.0323 mL																		
	10 mM	0.3516 mL	1.7581 mL	3.5162 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: ≥ 2.08 mg/mL (7.31 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.31 mM); Clear solution 																					

BIOLOGICAL ACTIVITY

Description	Emeramide is a thiol-redox antioxidant and heavy metal chelator ^[1] .
In Vitro	Emeramide (50 μM, 1 h) protects cell from Bleomycin (HY-108345)-induced cell (BPAECs) morphology alterations and cytotoxicity, and inhibits ROS generation, attenuates the Bleomycin-induced loss of cellular total thiols ^[2] . Emeramide (0-100 μM, pretreated for 24 h) inhibits Pb-induced neuroinflammation by reducing IL-1β and GFAP expression levels in U-87 MG cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Emeramide (450 mg/kg, daily, p.o., 6 weeks) decreases iron accumulation in Hfe H67D mutant mice (a mouse model of brain iron accumulation) ^[4] .

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

REFERENCES

- [1]. Patel RB, et al. Thiol-redox antioxidants protect against lung vascular endothelial cytoskeletal alterations caused by pulmonary fibrosis inducer, bleomycin: comparison between classical thiol-protectant, N-acetyl-L-cysteine, and novel thiol antioxidant, N,N'-bis(2-mercaptoethyl)isophthalamide. *Toxicol Mech Methods*. 2012 Jun;22(5):383-96.
- [2]. Gadde R, et al. N,N'-bis-(2-mercaptoethyl) isophthalamide (NBMI) exerts neuroprotection against lead-induced toxicity in U-87 MG cells. *Arch Toxicol*. 2021 Aug;95(8):2643-2657.
- [3]. Cheng R, et al. Reversal of genetic brain iron accumulation by N,N'-bis(2-mercaptoethyl)isophthalamide, a lipophilic metal chelator, in mice. *Arch Toxicol*. 2022 Jul;96(7):1951-1962.
- [4]. Secor JD, et al. Novel lipid-soluble thiol-redox antioxidant and heavy metal chelator, N,N'-bis(2-mercaptoethyl)isophthalamide (NBMI) and phospholipase D-specific inhibitor, 5-fluoro-2-indolyl des-chlorohalopemide (FIPI) attenuate mercury-induced lipid signaling leading to protection against cytotoxicity in aortic endothelial cells. *Int J Toxicol*. 2011 Dec;30(6):619-38.
-

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