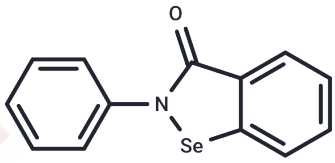
Data Sheet (Cat.No.T0825)

TargetMol

Ebselen

Chemical Properties



CAS No. : 60940-34-3

Formula: C13H9NOSe

Molecular Weight: 274.18

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Ebselen (CCG-39161) is a organoselenium compound with anti-inflammatory, anti-oxidant and cytoprotective activity. Ebselen acts as a glutathione peroxidase mimetic and is thereby able to prevent cellular damage induced by reactive oxygen species (ROS). In addition, this agent inhibits the activity of a variety of enzymes including nitric oxide synthase (NOS), 5-lipoxygenase, cyclooxygenase, protein kinase C (PKC), NADPH oxidase and gastric H+/K+-ATPase. Furthermore, ebselen may be neuroprotective due to its ability to neutralize free radicals upon NMDA receptor activation thus, reducing lipoperoxidation mediated by glutamate-induced excitotoxicity.
Targets(IC50)	Calcium Channel,HIV Protease,COX,Phosphatase,Virus Protease

Solubility Information

Solubility	DMSO: 40 mg/mL (145.89 mM),Sonication is recommended. H2O: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6472 mL	18.2362 mL	36.4724 mL
5 mM	0.7294 mL	3.6472 mL	7.2945 mL
10 mM	0.3647 mL	1.8236 mL	3.6472 mL
50 mM	0.0729 mL	0.3647 mL	0.7294 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.

Reference

Schewe T. Gen Pharmacol, 2009, 26 (6): 1153-69.
Sakita, Karina Mayumi, et al. Efficacy of Ebselen Against Invasive Aspergillosis in a Murine Model. Frontiers in Cellular and Infection Microbiology. 11 (2021): 539.
Yan H, Zhang R, Yan G, et al. Production of a versatile SARS-CoV-2 main protease biosensor based on a dimerization-dependent red fluorescent protein. Journal of Medical Virology. 2022
Li M, Bei Z C, Yuan Y, et al.In-cell bioluminescence resonance energy transfer (BRET)-based assay uncovers ceritinib and CA-074 as SARS-CoV-2 papain-like protease inhibitors.Journal of Enzyme Inhibition and Medicinal Chemistry.2024, 39(1): 2387417.
Wei J R, Zhang B, Zhang Y, et al.QSOX1 facilitates dormant esophageal cancer stem cells to evade immune elimination via PD-L1 upregulation and CD8 T cell exclusion.Proceedings of the National Academy of Sciences. 2024, 121(44): e2407506121.