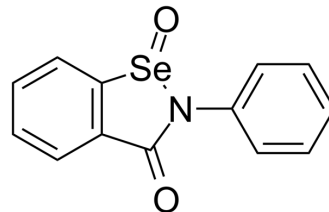


Ebselen oxide

Cat. No.:	HY-114548
CAS No.:	104473-83-8
Molecular Formula:	C ₁₃ H ₉ NO ₂ Se
Molecular Weight:	290.18
Target:	Guanylate Cyclase
Pathway:	GPCR/G Protein
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	Ebselen oxide, the selenone analogue of Ebselen, covalently modifies diguanylate cyclase (DGC) to inhibit c-di-GMP-receptor interactions and reduces DGC activity. Ebselen oxide also inhibits alginate production (IC ₅₀ =14 μM) by <i>Pseudomonas aeruginosa</i> . Ebselen oxide inhibits HDAC1, HDAC3, HDAC4, HDAC5, HDAC6, HDAC7, HDAC8, and HDAC9 (IC ₅₀ ranging from 0.2 to 4.7 μM) ^{[1][2][3]} .
In Vitro	Ebselen oxide, is a covalent inhibitor of c-di-GMP allosteric binding to I-site containing proteins, diguanylate cyclase (DGC) activity ^[1] . Ebselen oxide inhibits diguanylate cyclase from synthesizing c-di-GMP. Ebselen oxide exhibits increased potency on HDAC8 (IC ₅₀ =0.2 μM) in comparison with Ebselen ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Lieberman OJ, et al. High-throughput screening using the differential radial capillary action of ligand assay identifies ebselen as an inhibitor of diguanylate cyclases. *ACS Chem Biol.* 2014;9(1):183-192.
- [2]. Kim SK, et al. Inhibition of *Pseudomonas aeruginosa* Alginate Synthesis by Ebselen Oxide and Its Analogues. *ACS Infect Dis.* 2021;7(6):1713-1726.
- [3]. Wang Y, et al. Developing selective histone deacetylases (HDACs) inhibitors through ebselen and analogs. *Drug Des Devel Ther.* 2017;11:1369-1382. Published 2017 May 2.

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