

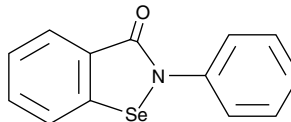
Product Information



Ebselen

Item No. 70530

CAS Registry No.: 60940-34-3
Formal Name: 2-phenyl-1,2-benziselenazol-3(2H)-one
MF: C₁₃H₉NOSe
FW: 274.2
Purity: ≥99%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 230, 263, 330 nm



Laboratory Procedures

For long term storage, we suggest that ebselen be stored as supplied at -20°C. It should be stable for at least two years.

Ebselen is supplied as a crystalline solid. Stock solutions of ebselen can be made by dissolving the crystalline compound in the solvent of choice. Solvents such as ethanol, DMSO, or dimethyl formamide purged with an inert gas can be used. The solubility of ebselen in these solvents is approximately 5 mg/ml.

Ebselen is not directly soluble in aqueous solutions. Further dilutions of the organic stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Store aqueous solutions of ebselen on ice and use within 30 minutes of preparation.

Ebselen is a non-selective inhibitor of prostaglandin H synthase (PGHS) 1 and 2. Ebselen acts as a glutathione peroxidase mimic and is an excellent scavenger of peroxyxynitrite with a rate constant of $2 \times 10^6 \text{ M}^{-1}\text{s}^{-1}$.¹ The glutathione peroxidase-like activity of ebselen inhibits cyclooxygenase and lipoxygenases at micromolar concentrations.^{2,3}

References

1. Masumoto, H., Kissner, R., Koppenol, W.H., *et al.* Kinetic study of the reaction of ebselen with peroxyxynitrite. *FEBS Lett.* **398**, 179-182 (1996).
2. Parnham, M.J. and Graf, E. Seleno-organic compounds and the therapy of hydroperoxide-linked pathological conditions. *Biochem. Pharmacol.* **36**, 3095-3102 (1987).
3. Parnham, M.J. and Kindt, S. A novel biologically active seleno-organic compound - III. Effects of PZ 51 (ebselen) on glutathione peroxidase and secretory activities of mouse macrophages. *Biochem. Pharmacol.* **33**, 3247-3250 (1984).

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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