Ebselen
Item No. 70530

CAS Registry No.: 60940-34-3
Formal Name: 2-phenyl-1,2-benzisoselenazol-3(2H)-one
MF: C13H9NOSe
FW: 274.2
Purity: ≥99%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: \( \lambda_{\text{max}} \): 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 peroxynitrite with a rate constant of \( 2 \times 10^6 \text{ M}^{-1}\text{s}^{-1} \). The glutathione peroxidase-like activity of ebselen inhibits cyclooxygenase and lipoxygenases at micromolar concentrations.\(^1^\)\(^2^\)

**References**