

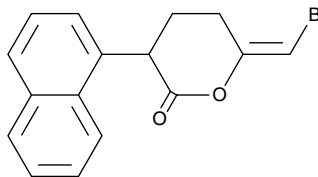
Product Information



Bromo-enol lactone

Item No. 70700

CAS Registry No.: 88070-98-8
Formal Name: 6E-(bromomethylene)tetrahydro-3-(1-naphthalenyl)-2H-pyran-2-one
Synonym: BEL
MF: C₁₆H₁₃BrO₂
FW: 317.2
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid
Melting Point: 103-106°C
UV/Vis.: λ_{max}: 218, 284 nm



Laboratory Procedures

For long term storage, we suggest that bromo-enol lactone (BEL) be stored as supplied at -20°C. It should be stable for at least one year.

BEL is supplied as a crystalline solid. A stock solution may be made by dissolving the BEL in an organic solvent purged with an inert gas. BEL is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of BEL in these solvents is approximately 5, 25, and 50 mg/ml, respectively.

Further dilutions of the BEL solutions into aqueous buffers should be made just prior to performing experiments. Store aqueous solutions of BEL on ice and use within 12 hours of preparation. Although the aqueous solutions of BEL may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

BEL is a selective, potent, irreversible, mechanism-based inhibitor of myocardial cytosolic calcium-independent phospholipase A₂ (iPLA₂) with a K_i value of 180 nM.¹ BEL also inhibits macrophage iPLA₂ in a concentration-dependent manner with an IC₅₀ value of 60 nM and is an effective enzyme-activated irreversible inhibitor of chymotrypsin (K_i = 636 nM).^{2,3}

References

1. Hazen, S.L., Zupan, L.A., Weiss, R.H., *et al.* Suicide inhibition of canine myocardial cytosolic calcium-independent phospholipase A₂. *J. Biol. Chem.* **266**, 7227-7232 (1991).
2. Ackermann, E.J., Conde-Frieboes, K., and Dennis, E.A. Inhibition of macrophage Ca²⁺-independent phospholipase A₂ by bromo-enol lactone and trifluoromethyl ketones. *J. Biol. Chem.* **270**, 445-450 (1995).
3. Daniels, S.B., Cooney, E., Sofia, M.J., *et al.* Halo-enol Lactones. Potent enzyme-activated irreversible inhibitors for α-chymotrypsin. *J. Biol. Chem.* **258**, 15046-15053 (1983).

Related Products

EA4 - Item No. 10111 • (R)-Bromo-enol lactone-d₇ - Item No. 10534 • (S)-Bromo-enol lactone-d₇ - Item No. 10535 • Methyl Arachidonoyl Fluorophosphonate - Item No. 70660 • (R)-Bromo-enol lactone - Item No. 10006800 • (S)-Bromo-enol lactone - Item No. 10006801

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.

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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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