

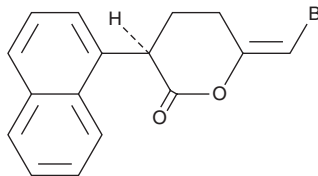
Product Information



(R)-Bromoenoil lactone

Catalog No. 10006800

CAS Registry No.: 478288-90-3
Formal Name: 6E-(bromoethylene)tetrahydro-3R-(1-naphthalenyl)-2H-pyran-2-one
Synonym: (R)-BEL
MF: C₁₆H₁₃BrO₂
FW: 317.2
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

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

(R)-BEL is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (R)-BEL in these solvents is approximately 5, 25, and 50 mg/ml, respectively.

Further dilutions of the 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. If an organic solvent-free solution of (R)-BEL is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of (R)-BEL in PBS (pH 7.2) is approximately 0.05 mg/ml. We do not recommend storing the aqueous solution for more than one day.

The phospholipases are an extensive family of lipid hydrolases that function in cell signaling, digestion, membrane remodeling, and as venom components.¹ The calcium-independent phospholipases (iPLA₂) are a PLA₂ subfamily closely associated with the release of arachidonic acid in response to physiologic stimuli. (R)-BEL is an irreversible, chiral, mechanism-based inhibitor of iPLA₂ γ . Unlike (S)-BEL, (R)-BEL does not inhibit iPLA₂ β except at high doses of 20-30 μ M.² (R)-BEL inhibits human recombinant iPLA₂ γ with an IC₅₀ of approximately 0.6 μ M.

References

1. Balsinde, J., Balboa, M.A., Insel, P.A., *et al.* Regulation and inhibition of phospholipase A₂. *Annu. Rev. Pharmacol. Toxicol.* **39**, 175-189 (1999).
2. Jenkins, C.M., Han, X., Mancuso, D.J., *et al.* Identification of calcium-independent phospholipase A₂ (iPLA₂) β , and not iPLA₂ γ , as the mediator of arginine vasopressin-induced arachidonic acid release in A-10 smooth muscle cells. *J. Biol. Chem.* **277**(36), 32807-32814 (2002).

Related Products

Bromoenoil lactone - Cat. No. 70700 • (S)-Bromoenoil lactone - Cat. 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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