

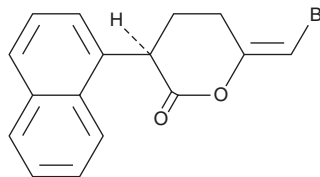
# PRODUCT INFORMATION



## (R)-Bromo-enol lactone

Item No. 10006800

**CAS Registry No.:** 478288-90-3  
**Formal Name:** 6E-(bromoethylene)tetrahydro-3R-(1-naphthalenyl)-2H-pyran-2-one  
**Synonym:** (R)-BEL  
**MF:** C<sub>16</sub>H<sub>13</sub>BrO<sub>2</sub>  
**FW:** 317.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 222, 280 nm  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:** ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

(R)-Bromo-enol lactone ((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.

(R)-BEL is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of (R)-BEL should be diluted with the aqueous buffer of choice. 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.

### Description

The phospholipases are an extensive family of lipid hydrolases that function in cell signaling, digestion, membrane remodeling, and as venom components.<sup>1</sup> The calcium-independent phospholipases (iPLA<sub>2</sub>) are a PLA<sub>2</sub> subfamily closely associated with the release of arachidonic acid in response to physiologic stimuli. (R)-BEL is an irreversible, chiral, mechanism-based inhibitor of calcium-independent phospholipase γ (iPLA<sub>2</sub>γ). Unlike (S)-BEL, (R)-BEL does not inhibit iPLA<sub>2</sub>β except at high doses of 20-30 μM.<sup>2</sup> (R)-BEL inhibits human recombinant iPLA<sub>2</sub>γ with an IC<sub>50</sub> of approximately 0.6 μM.

### References

1. Balsinde, J., Balboa, M.A., Insel, P.A., *et al.* Regulation and inhibition of phospholipase A<sub>2</sub>. *Annu. Rev. Pharmacol. Toxicol.* **39**, 175-189 (1999).
2. Jenkins, C.M., Han, X., Mancuso, D.J., *et al.* Identification of calcium-independent phospholipase A<sub>2</sub> (iPLA<sub>2</sub>) β, and not iPLA<sub>2</sub>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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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