

PRODUCT INFORMATION



(S)-Bromo-enol lactone-d₇

Item No. 10535

Formal Name: 6E-(bromoethylene)tetrahydro-3S-(1-naphthalenyl-2,3,4,5,6,7,8-d₇)-2H-pyran-2-one

Synonym: (S)-BEL-d₇

MF: C₁₆H₆BrD₇O₂

FW: 324.2

Chemical Purity: ≥98% ((S)-Bromo-enol lactone)

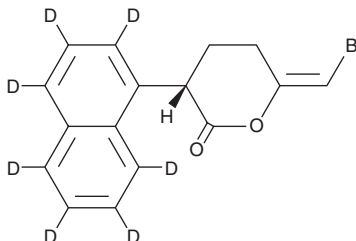
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₇); ≤1% d₀

UV/Vis.: λ_{max}: 280 nm

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

(S)-Bromo-enol lactone-d₇ ((S)-BEL-d₇) is intended for use as an internal standard for the quantification of (S)-BEL by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

(S)-BEL-d₇ 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 (S)-BEL-d₇ in these solvents is approximately 5, 25, and 50 mg/ml, respectively.

Description

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 phospholipase A₂ (iPLA₂) are a PLA₂ subfamily closely associated with the release of arachidonic acid in response to physiologic stimuli. (S)-BEL is an irreversible, chiral, mechanism-based inhibitor of iPLA₂β that inhibits the vasopressin-induced release of arachidonate from cultured rat aortic smooth muscle (A10) cells with an IC₅₀ value of 2 μM.² (S)-BEL is more than 1,000-fold selective for iPLA₂β *versus* cPLA₂, and is 10-fold selective for iPLA₂β *versus* iPLA₂γ.

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 iPLA₂γ, 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.

WARRANTY AND LIMITATION OF REMEDY

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