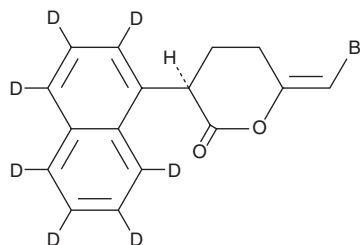


Product Information



(R)-Bromo-enol lactone-d₇ Catalog No. 10534

Formal Name:	6E-(bromoethylene)tetrahydro-3R-(1-naphthalenyl-2,3,4,5,6,7,8-d ₇)-2H-pyran-2-one
Synonym:	(R)-BEL-d ₇
MF:	C ₁₆ H ₆ BrD ₇ O ₂
FW:	324.2
Chemical Purity:	≥98%
Deuterium Incorporation:	≤1% d ₀
Stability:	≥1 year at -20°C
Supplied as:	A solution in methyl acetate



Laboratory Procedures

(R)-Bromo-enol lactone-d₇ ((R)-BEL-d₇) contains seven deuterium atoms at the 2, 3, 4, 5, 6, 7, and 8 positions. It is intended for use as an internal standard for the quantification of (R)-BEL by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that (R)-BEL-d₇ be stored as supplied at -20°C. It should be stable for at least one year.

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

(R)-BEL-d₇ is used as an internal standard for the quantification of (R)-BEL by stable isotope dilution 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).

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. (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 value 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

(S)-Bromo-enol lactone-d₇ - Cat. No. 10535 • Bromo-enol lactone - Cat. No. 70700 • (R)-Bromo-enol lactone - Cat. No. 10006800 • (S)-Bromo-enol lactone - Cat. No. 10006801 • Bromo-enol Lactone-d₇ - Cat. No. 9000528

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.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any **obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

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.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

Copyright Cayman Chemical Company, 07/08/2010

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com