

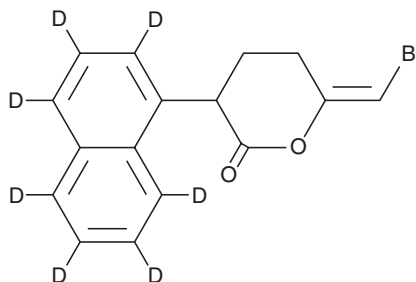
PRODUCT INFORMATION



Bromo-enol lactone-d₇

Item No. 9000528

Formal Name:	6E-(bromomethylene)tetrahydro-3-(1-naphthalenyl-2,3,4,5,6,7,8-d ₇)-2H-pyran-2-one
Synonyms:	BEL-d ₇ , Halo-enol lactone-d ₇ , HELSS-d ₇
MF:	C ₁₆ H ₆ D ₇ BrO ₂
FW:	324.2
Chemical Purity:	≥98% (Bromo-enol lactone)
Deuterium Incorporation:	≥99% deuterated forms (d ₁ -d ₇); ≤1% d ₀
UV/Vis.:	λ _{max} : 223, 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

Bromo-enol lactone-d₇ (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 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).

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

Description

BEL is a selective, potent, irreversible, mechanism-based inhibitor of phospholipase A₂ (iPLA₂) with a K_i value of 180 nM.¹ It 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**(11), 7227-7232 (1991).
2. Ackermann, E.J., Conde-Frieboes, K., and Dennis, E.A. Inhibition of macrophage Ca²⁺-independent phospholipase A₂ by bromoenol lactone and trifluoromethyl ketones. *J. Biol. Chem.* **270**(1), 445-450 (1995).
3. Balsinde, J., Bianco, I.D., Ackermann, E.J., *et al.* Inhibition of calcium-independent phospholipase A₂ prevents arachidonic acid incorporation and phospholipid remodeling in P388D₁ macrophages. *Proc. Natl. Acad. Sci. USA* **92**(18), 8527-8531 (1995).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM