

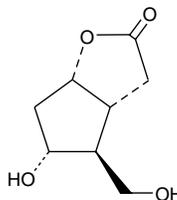
# Product Information



## (-)-Corey lactone diol

Item No. 70035

**CAS Registry No.:** 32233-40-2  
**Formal Name:** (3aR,4S,5R,6aS)-hexahydro-5-hydroxy-4-(hydroxymethyl)-2H-cyclopenta[b]furan-2-one  
**MF:** C<sub>8</sub>H<sub>12</sub>O<sub>4</sub>  
**FW:** 172.2  
**Purity:** ≥98%  
**Stability:** ≥2 years at room temperature  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that (-)-Corey lactone diol be stored as supplied at room temperature. It will be stable for at least two years.

(-)-Corey lactone diol is supplied as a crystalline solid. A stock solution may be made by dissolving the (-)-Corey lactone diol in an organic solvent purged with an inert gas. (-)-Corey lactone diol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (-)-Corey lactone diol in these solvents is approximately 10, 30, 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. Organic solvent-free aqueous solutions of (-)-Corey lactone diol can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of (-)-Corey lactone diol in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Corey aldehyde is a versatile, hydroxy-lactone intermediate for the synthesis of prostaglandins and prostaglandin analogs. Prostaglandin derivatives with modifications in the  $\alpha$  chain, the  $\omega$  chain, or both, are readily accessible from this general intermediate.<sup>1</sup> (-)-Corey lactone diol is simply the reduced version of Corey aldehyde, with alcohol groups at both C-11 and C-13. This allows the introduction of  $\omega$  chain constituents *via* alternate chemistries, such as nucleophilic displacements.

### Reference

1. Bindra, J.S. and Bindra, R. Prostaglandin Synthesis. *Academic Press, Inc.*, New York (1977).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/70035](http://www.caymanchem.com/catalog/70035)

**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.

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