



## Desert Hedgehog (C23II), mouse recombinant (rmDhh)

**Catalog No:** 99936  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** Desert hedgehog protein, DHH, HHG-3, C78960

### Background

DHH is part of the hedgehog family, which encodes signaling molecules that are involved in regulating morphogenesis. DHH protein is a precursor that is autocatalytically cleaved, the N-terminal portion is soluble and contains the signalling activity, while the C-terminal portion is involved in precursor processing. Additionally, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the organism. Defects in DHH protein have been associated with partial gonadal dysgenesis (PGD) accompanied by minifascicular polyneuropathy. DHH plays a role in both male gonadal differentiation and perineurial development. It also plays a role in intercellular signaling, which is essential for a variety of patterning events during development. DHH functions as a spermatocyte survival factor in the testes and is essential for testes development.

### Description

DHH (C23II) Mouse Recombinant, produced in *E. coli*, is a single, non-glycosylated polypeptide chain containing 177 amino acids. It has a molecular mass of 20 kDa. The DHH (C23II) is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered, white, lyophilized (freeze-dried) powder.

### Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in PBS (pH 7.4), 1 mM DTT and 0.05% Tween-80.

### Solubility

It is recommended to reconstitute the lyophilized DHH (C23II) in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized DHH (C23II), although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution DHH (C23II) should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 97% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

### Activity

The ED<sub>50</sub>, as determined by its ability to induce alkaline phosphatase production by murine MC3T3-E1 cells, is 5-20 µg/ml.

### Usage

**This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.**

## CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • [info@biomol.de](mailto:info@biomol.de) • [www.biomol.de](http://www.biomol.de)

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51