

Desert HedgeHog (C23II), human recombinant, His Tag (rhuDHH)

Catalog No: 99926 Lot No: XXXXX Source: *E. coli*

Synonyms: HHG-3, Desert Hedgehog homolog, MGC35145, Desert hedgehog protein, DHH

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) His Human Recombinant, produced in *E. coli*, is a single, non-glycosylated polypeptide chain containing 201 amino acids (23-198). It has a molecular mass of 22.4 kDa. DHH (C23II) His is fused to a 24 amino acid His-tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered, clear solution.

Formulation

The DHH (C23II) His solution (0.25 mg/ml) contains 20 mM Tris-HCl buffer (pH 7.5), 0.15 M NaCl, 1 mM DTT and 10% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90% as determined by SDS-PAGE.

Usage

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