

Desert HedgeHog, His Tag, human recombinant (rHuDHH-His)

Catalog No: 97385 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 both male gonadal differentiation and perineurial development. DHH 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 & is essential for testes development.

Description

DHH human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 197 amino acids (23-198) and having a molecular mass of 22 kDa. DHH is fused to His Tag (20) at the N-terminus and is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless solution.

Formulation

DHH solution containing 20 mM MES pH 5.5, 0.5 mM DTT and 20% glycerol.

Stability

DHH, although stable at 4°C for 1 week, should be stored desiccated below -18°C. Please prevent freeze thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

MGSSHHHHHH SSGLVPRGSH MCGPGRGPVG RRRYARKQLV PLLYKQFVPG VPERTLGASG PAEGRVARGS ERFRDLVPNY NPDIIFKDEE NSGADRLMTE RCKERVNALA IAVMNMWPGV RLRVTEGWDE DGHHAQDSLH YEGRALDITT SDRDRNKYGL LARLAVEAGF DWVYYESRNH VHVSVKADNS LAVRAGG

Usage

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