

# **California Bioscience**

# **Product Datasheet**

| Product Name | Desert Hedgehog Human Recombinant                                       |
|--------------|---|
| Cata No      | CB500369  |
| Source       | Escherichia Coli.   |
| Synonyms     | HHG-3, Desert Hedgehog homolog, MGC35145, Desert hedgehog protein, DHH. |

## Description

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.

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 a.a.) at N-terminus and is purified by proprietary chromatographic techniques.

#### **Physical Appearance**

Sterile filtered colorless solution.

#### Purity

Greater than 95.0% as determined by SDS-PAGE.

#### Formulation

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

## Stability

DHH Human Recombinant although stable at  $4^{\circ}$  for 1 week, should be stored desiccated below -18°C.

Please prevent freeze thaw cycles.

#### Sequence

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