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## Product Data Sheet

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Product Name: DHH (C23II) His Human  
 Cat. No.: GP20888  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	HHG-3; Desert Hedgehog homolog; MGC35145; Desert hedgehog protein; DHH.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSMIIGPGR GPVGRRRRYAR KQLVPLLYKQ FVPGVPERTL GASGPAEGRV ARGSERFRDL VPNYNPDIIIF KDEENSGADR LMTERCKERV NALAIAMNM WPGVRLRVTE GWDEDGHHAQ DSLHYEGRAL DITTSRDRN KYGLLARLAV EAGFDWVYYE SRNHVHVSVK ADNSLAVRAG G		
Formulation	The DHH (C23II) His solution (0.25mg/ml) contains 20mM Tris-HCl buffer (pH 7.5), 0.15M NaCl, 1mM DTT and 10% glycerol.		

### Introduction

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.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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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.

### Background

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

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