Active Recombinant Human DHH Protein (177 aa)

Cat. No. DHH-432D **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Desert hedgehog (DHH) produced in E. coli is a single non-glycosylated polypeptide chain containing 177 amino acids. A fully biologically active molecule, rhDHH has a molecular mass of around 20kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	177
Description	Desert hedgehog protein (DHH) is a member of the Hedgehog family which encodes signaling molecules that play an important role in regulating morphogenesis. It is predicted to be made as a precursor that is auto-catalytically cleaved; the N-terminal portion is soluble and contains the signaling activity while the C-terminal portion is involved in precursor processing. More importantly, 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 this protein have been associated with partial gonadal dysgenesis (PGD) accompanied by minifascicular polyneuropathy. DHH may be involved in both male gonadal differentiation and perineurial development. DHH binds both Patched and Patched 2 as well as Hedgehog interacting protein (Hip). It induces steroidogenic factor 1(SF1), which is instrumental in promoting Leydig cell differentiation. It also promotes the deposition of basal lamina surrounding

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	seminiferous tubules.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 10μg/, measured by its ability to induce alkaline phosphatase production by CCL-226 cells, corresponding to a specific activity of > 100 units/mg.
Molecular Mass	~20 kDa, observed by reducing SDS-PAGE.
AA Sequence	IIGPGRGPVGRRRYARKQLVPLLYKQFVPGVPERTLGASGPAEGRVARGSERFRDL VPNYNPDIIFKDEENSGADRLMTERCKERVNALAIAVMNMWPGVRLRVTEGWDED GHHAQDSLHYEGRALDITTSDRDRNKYGLLARLAVEAGFDWVYYESRNHVHVSVKA DNSLAVRAGG
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Storage	Lyophilized recombinant Human Hedgehog homolog(rhDHH) remains stable up to 6 months at-80 centigrade from date of receipt. Upon reconstitution, rhDHH remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH2O at 100 μg/mL.

GENE INFORMATION

Gene Name	DHH desert hedgehog [Homo sapiens]
Official Symbol	DHH

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Synonyms	DHH; desert hedgehog; desert hedgehog (Drosophila) homolog; desert hedgehog protein; HHG 3; MGC35145; mutant desert hedgehog; desert hedgehog homolog; GDXYM; HHG-3; SRXY7;
Gene ID	50846
mRNA Refseq	NM_021044
Protein Refseq	NP_066382
MIM	605423
UniProt ID	O43323

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