
Product Data Sheet

Product Name: IHH Human
 Cat. No.: GP20437
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Indian hedgehog protein; IHH; HHG-2; BDA1.		
Amino Acid Sequence	IIGPGRVVGS RRRPPRKLVP LAYKQFSPNV PEKTLGASGR YEGKIARSSE RFKELTPNYN PDIIFKDEEN TGADRLMTQR CKDRLNSLAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY EGRAVDITTS DRDRNKYGLL ARLAVEAGFD WVYYESKAHV HCSVKSEHSA AAKTGG.		
Solubility	It is recommended to reconstitute the lyophilized IHH in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a 0.2μm filtered concentrated solution in 16 ^L PBS, pH 7.4.		

Introduction

IHH belongs to the hedgehog family of secreted signaling molecules. Hedgehog proteins are vital regulators of various developmental processes including growth, patterning and morphogenesis. The vertebrate homologues of Hh comprise several proteins including sonic hedgehog (Shh), Indian hedgehog (Ihh), and Desert hedgehog (Dhh). IHH has a specific role in bone growth and differentiation. In addition, IHH is involved in yolk sac vasculogenesis, having a central role in differentiation of epiblast cells into endothelial and red blood cells. IHH mRNA expression is detected in fetal lung, gut, stomach, liver, kidney, pancreas and strongly in cartilage in growth regions of the developing bone. IHH gene mutations cause the brachydactyly type A1 which is characterized by shortening or malformation of the phalanges and also the acrocapitofemoral dysplasia.

Biological Activity

Determined by its ability to induce alkaline phosphatase production by C3H/10T1/2 (CCL-

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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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226) cells. The expected ED50 for this effect is 3.0-10.0µg/ml corresponding to a specific activity of 100-334units/mg.

Stability

Lyophilized IHH although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution IHH should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

IHH Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 176 amino acids and having a molecular mass of 19.8kDa. The IHH is purified by proprietary chromatographic techniques.

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