Cytokines

Human Recombinant IHH

Indian hedgehog

Catalog #	78197	10 µg
	78197.1	50 µg

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Product Description

Indian hedgehog (IHH) is one of three proteins in the hedgehog family which includes sonic hedgehog and desert hedgehog. Hedgehog proteins are important signaling molecules, acting through patched and smoothened receptors. During embryonic development, they are expressed in the fetal lung, gut, stomach, liver, kidney, and pancreas. IHH is strongly expressed in cartilage and regions of developing bone, and its signaling regulates growth and differentiation of bone tissue (Marigo et al.; Valentini et al.; St-Jacques et al.). IHH is also involved in yolk sac vasculogenesis, indicating a role in the differentiation of epiblast cells into endothelial and red blood cells (Byrd et al.). IHH induces the expression of parathyroid hormone-related peptide (PTHrP), which negatively regulates IHH during chondrocyte differentiation and proliferation (Vortkamp et al.).

Product Information

Alternative Names:	BDA1, HHG-2, Indian hedgehog protein
Accession Number:	Q14623
Amino Acid Sequence:	CGPGRVVGSR RRPPRKLVPL AYKQFSPNVP EKTLGASGR YEGKIARSSE RFKELTPNYN PDIIFKDEEN TGADRLMTQR CKDRLNSLAI SVMNQWPGV KLRVTEGWDE DGHHSEESLH YEGRAVDITT SDRDRNKYGL LARLAVEAGF DWVYYESKA HVHCSVKSEH SAAAKTGG
Predicted Molecular Mass:	19.7 kDa
Species:	Human
Cross Reactivity:	Reported to be species-specific
Formulation:	Lyophilized after dialysis against phosphate-buffered saline.
Source:	E. coli

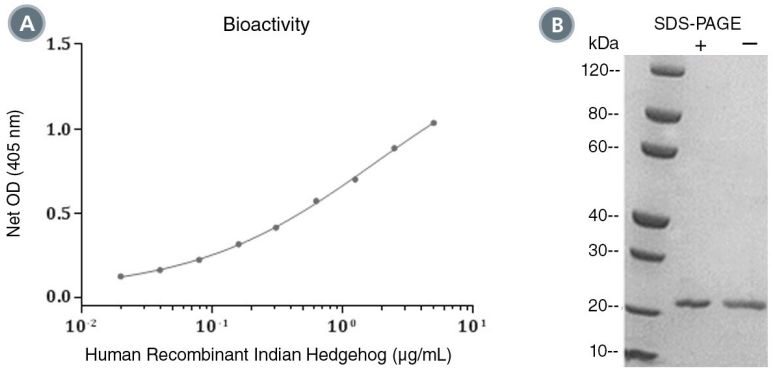
Specifications

Activity:	The specific activity is ≥ 3.3 x 10^2 units/mg (EC50 ≤ 3 µg/mL) as determined by an alkaline phosphatase activity assay in CCL-226 cells.
Purity:	≥ 95%
Endotoxin Level:	Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

Preparation and Storage

Storage:	Store at -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 week or at -20°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant IHH was tested by its ability to induce alkaline phosphatase activity by CCL-226 cells. Alkaline phosphatase activity was measured by a fluorometric assay method. The EC50 is defined as the effective concentration of the signaling molecule at which alkaline phosphatase activity is at 50% of maximum. The EC50 in the example above is less than 3 µg/mL. (B) 2 µg of Human Recombinant IHH was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant IHH has a predicted molecular mass of 19.7 kDa.

Related Products

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References

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