

Product Datasheet

RecombinantIHH,Human (orb1494835)

Catalog Number orb1494835

Category Proteins

Description The Indian Hedgehog protein (IHH) is one of three proteins in the mammalian hedgehog family, the others being desert hedgehog (DHH) and Sonic hedgehog (SHH). Hedgehog proteins are important signaling molecules during embryonic development and are highly conserved across species. Mouse and human IHH share 100% amino acid identity in the signaling domain, while mouse IHH and SHH share 90% amino acid identity in the N-terminal signaling domain. 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 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 gene mutations cause the brachydactyly type A1 which is characterized by shortening or malformation of the phalanges and also the acrocapitofemoral dysplasia. Recombinant Human Indian Hedgehog (IHH) produced in E.coli is a single non-glycosylated polypeptide chain containing 178 amino acids. A fully biologically active molecule, rhIHH has a molecular mass of 20 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Form/Appearance Lyophilized after extensive dialysis against PBS.

Buffer/Preservatives Lyophilized after extensive dialysis against PBS.

Purity > 95% as analyzed by SDS-PAGE.

Purification > 95% as analyzed by SDS-PAGE.

Protein Sequence IIG PGRVVGSRRR PPRKLVPLAY KQFSPNVPEK TLGASGRYEG KIARSSERFK
ELTPNYNPDI IFKDEENTGA DRLMTQRCKD RLNSLAISVM NQWPGVKLRV
TEGWDEDGHH SEESLHYEGR AVDITTSDRD RNKYGLLARL AVEAGFDWVY
YESKAHVHCS VKSEHSAAAK TGG

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MW	20 kDa, observed by reducing SDS-PAGE.
Application notes	Reconstituted in ddH ₂ O or PBS at 100 µg/ml.
Endotoxins	0.2 EU/µg, determined by LAL method.
Source	Escherichia coli.
Biological Activity	ED ₅₀ 3µg/ml, measure d by its ability to induce alkaline phosphatase production by CCL-226 cells.
Storage	Lyophilized recombinant Human Indian Hedgehog (IHH), remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, human IHH should be stable up to 1 week at 4°C or up to 3 months at -20°C.
Note	For research use only
Expiration Date	6 months from date of receipt.

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