Rev03
Update: Dec,14,2021

DATASHEET

IHH, Human

Cat. No.: Z03277

Product Introduction

Species	Human
Protein Construction	**IHH [Cys28-Gly202 (Cys28IleIle)] Accession # Q14623**
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 0.2 EU/μg of protein by gel clotting method
Biological Activity	ED_{50} < 3.0 μg/ml, measured by its ability to induce alkaline phosphatase production by CCL-226 cells.
Expression System	E. coli
Apparent Molecular Weight	~20 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Background

Target Background : 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.

Synonyms : IHH, Ihh (C28II)

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

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