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Product datasheet

Recombinant human/mouse Ihh protein ab218095

1 Image

Description

Product name	Recombinant human/mouse Ihh protein
Purity	= 97 % SDS-PAGE. Purity is approximately 97% as determined by RP-HPLC and reducing and non-reducing SDS-PAGE.
Endotoxin level	< 0.050 Eu/µg
Expression system	Escherichia coli
Accession	Q14623
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MIIGPGRVVG SRRRPPRKLV PLAYKQFSPN VPEKTLGASG RYEGKIARSS ERFKELTPNY NPDIIFKDEE NTGADRLMTQ RCKDRLNSLA ISVMNQWPGV KLRVTEGWDE DGHHSEESLH YEGRAVDITT SDRDRNKYGL LARLAVEAGF DWVYYESKAH VHCSVKSEHS AAAKTGG
Predicted molecular weight	20 kDa
Amino acids	29 to 202
Additional sequence information	Indian hedgehog protein N-product. Without signal peptide, without C-product.

Specifications

Our **Abpromise guarantee** covers the use of **ab218095** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE HPLC
Form	Lyophilized
Additional notes	This product shares 100% homology with amino acids 29 -202 of Mouse IHH.

Preparation and Storage

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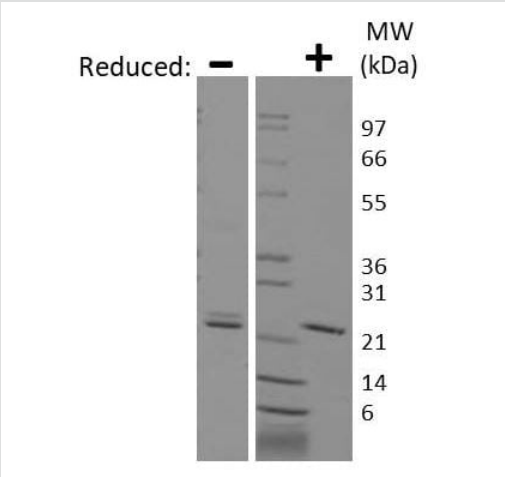
Stability and Storage	Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Constituent: 0.1% Trifluoroacetic acid
Reconstitution	Reconstitute in Sterile 10 mM HCl at 0.1 mg/mL . Centrifuge vial before opening. Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80 ºC and avoid repeat freeze thaws.

General Info

Function	Intercellular signal essential for a variety of patterning events during development. Binds to the patched (PTC) receptor, which functions in association with smoothened (SMO), to activate the transcription of target genes. Implicated in endochondral ossification: may regulate the balance between growth and ossification of the developing bones. Induces the expression of parathyroid hormone-related protein (PTHRP).
Tissue specificity	Expressed in embryonic lung, and in adult kidney and liver.
Involvement in disease	Defects in IHH are the cause of brachydactyly type A1 (BDA1) [MIM:112500]. BDA1 is an autosomal dominant disorder characterized by middle phalanges of all the digits rudimentary or fused with the terminal phalanges. The proximal phalanges of the thumbs and big toes are short. Defects in IHH are a cause of acrocapitofemoral dysplasia (ACFD) [MIM:607778]. ACFD is a disorder characterized by short stature of variable severity with postnatal onset. The most constant radiographic abnormalities are observed in the tubular bones of the hands and in the proximal part of the femur. Cone-shaped epiphyses or a similar epiphyseal configuration with premature epimetaphyseal fusion result in shortening of the skeletal components involved. Cone-shaped epiphyses were also present to a variable extent at the shoulders, knees, and ankles.
Sequence similarities	Belongs to the hedgehog family.
Post-translational modifications	The C-terminal domain displays an autoproteolysis activity and a cholesterol transferase activity. Both activities result in the cleavage of the full-length protein and covalent attachment of a cholesterol moiety to the C-terminal of the newly generated N-terminal fragment (N-product). The N-product is the active species in both local and long-range signaling, whereas the C-product has no signaling activity. Cholesterylation is required for N-product targeting to lipid rafts and multimerization. Palmitoylated. N-palmitoylation is required for N-product multimerization and full activity.
Cellular localization	Secreted > extracellular space. The C-terminal peptide diffuses from the cell and Cell membrane. The N-terminal peptide remains associated with the cell surface.

Images



SDS-PAGE - Recombinant human/mouse Ihh protein (ab218095)

SDS PAGE analysis of ab218095 under non-reducing (-) and reducing (+) conditions. Stained with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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