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(Mouse) Ihh Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21224a

Product Information

Application	WB, FC, IHC-P, E
Primary Accession	P97812
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52382
Calculated MW	45485

Additional Information

Gene ID	16147
Other Names	Indian hedgehog protein, IHH, HHG-2, Indian hedgehog protein N-product, Indian hedgehog protein C-product, Ihh
Target/Specificity	This mouse Ihh antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 57-90 amino acids from the N-terminal region of mouse Ihh.
Dilution	WB~~1:2000 FC~~1:25 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	(Mouse) Ihh Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Ihh {ECO:0000303|PubMed:9079674, ECO:0000312|MGI:MGI:96533}
Function	[Indian hedgehog protein]: Precursor of indian hedgehog, a morphogen that activates the smoothened signaling pathway, and which is essential for bone and cartilage development (PubMed:10465785, PubMed:10631175,

PubMed:18582859, PubMed:19252479). The C-terminal part of the precursor displays an autoproteolysis and a cholesterol transferase activity, resulting (1) in the cleavage of the full-length protein into two parts, indian hedgehog protein N-product and C-product and (2) covalent attachment of a cholesterol moiety to the C-terminus of the newly generated N-product (By similarity). Both autoproteolysis and a cholesterol transferase activities occur in the endoplasmic reticulum (By similarity). Following additional lipidation, N-product acts as a morphogen, while C-product is degraded in the endoplasmic reticulum (By similarity).

Cellular Location

[Indian hedgehog protein]: Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q15465}. Golgi apparatus membrane {ECO:0000250|UniProtKB:Q15465}. Note=Co-localizes with HHAT in the ER and Golgi membrane. {ECO:0000250|UniProtKB:Q15465}

Tissue Location

In the adult kidney, found in proximal convoluted and proximal straight tubule (PubMed:9079674). Expressed in the developing eye (PubMed:18582859).

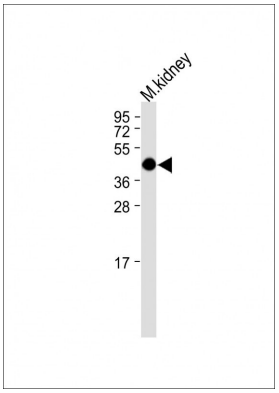
Background

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).

References

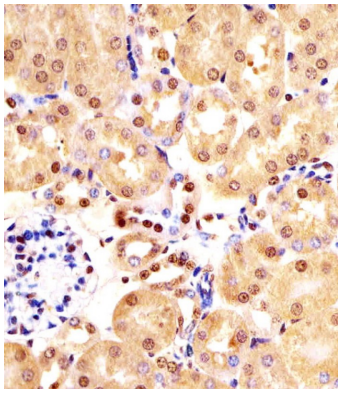
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Chang D.T.,et al.Development 120:3339-3353(1994).

Images

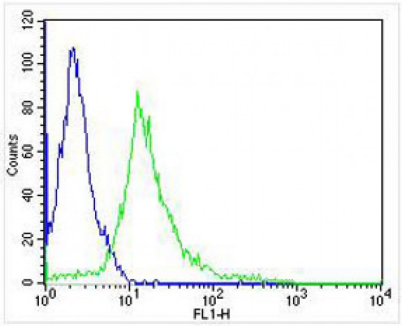


All lanes : Anti-(Mouse) Ihh Antibody (N-term) at 1:1000 dilution Lane 1: M. kidney whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Observed band size : 47kDa Blocking/Dilution buffer: 5% NFDM/TBST.

AP21224a staining (Mouse) Ihh in mouse kidney sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for



1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing Jurkat cells stained with AP21224a (green line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP12735b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit lgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.