SANTA CRUZ BIOTECHNOLOGY, INC.

Ihh (H-88): sc-13088

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The *Drosophila* segment polarity gene hedgehog (hh) encodes a precursor protein which undergoes autocleavage to generate amino- and carboxy-terminal peptides. Both proteins are secreted and appear to function in embryonic and imaginal disc patterning. Several vertebrate homologs of *Drosophila* hh have been identified. These include Sonic hedgehog (Shh), alternatively designated Vhh-1, Desert hedgehog (Dhh) and Indian hedgehog (Ihh). Each contain amino-terminal signal peptides and apparently function as secreted proteins involved in the mediation of various cell-cell interactions. Shh resembles *Drosophila* hh in that it is processed to generate an amino-terminal secreted peptide that is retained at or near the cell surface and a carboxy-terminal glycosylated more diffusible peptide.

CHROMOSOMAL LOCATION

Genetic locus: IHH (human) mapping to 2q35; Ihh (mouse) mapping to 1 C3.

SOURCE

Ihh (H-88) is a rabbit polyclonal antibody raised against amino acids 228-315 of Ihh of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Ihh (H-88) is recommended for detection of Ihh of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ihh (H-88) is also recommended for detection of Ihh in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Ihh siRNA (h): sc-37206, Ihh siRNA (m): sc-37207, Ihh shRNA Plasmid (h): sc-37206-SH, Ihh shRNA Plasmid (m): sc-37207-SH, Ihh shRNA (h) Lentiviral Particles: sc-37206-V and Ihh shRNA (m) Lentiviral Particles: sc-37207-V.

Molecular Weight of Ihh: 45 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

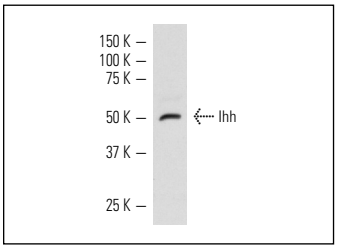
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

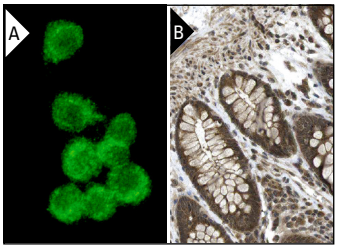
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Ihh (H-88): sc-13088. Western blot analysis of Ihh expression in NIH/3T3 whole cell lysate.



Ihh (H-88): sc-13088. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic and nuclear staining of glandular cells magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Tang, G.H., et al. 2004. Indian hedgehog: a mechanotransduction mediator in condylar cartilage. J. Dent. Res. 83: 434-438.
2. Gat-Yablonski, G., et al. 2007. Leptin stimulates parathyroid hormone related peptide expression in the endochondral growth plate. J. Pediatr. Endocrinol. Metab. 20: 1215-1222.
3. Chen, X., et al. 2007. Hedgehog signal pathway is activated in ovarian carcinomas, correlating with cell proliferation: it's inhibition leads to growth suppression and apoptosis. Cancer Sci. 98: 68-76.
4. Jung, Y., et al. 2007. Bile ductules and stromal cells express hedgehog ligands and/or hedgehog target genes in primary biliary cirrhosis. Hepatology 45: 1091-1096.
5. Feng, Y.Z., et al. 2007. Overexpression of hedgehog signaling molecules and its involvement in the proliferation of endometrial carcinoma cells. Clin. Cancer Res. 13: 1389-1398.
6. Witek, R.P., et al. 2009. Liver cell-derived microparticles activate hedgehog signaling and alter gene expression in hepatic endothelial cells. Gastroenterology 136: 320-330.
7. Xuan, Y., et al. 2009. Expression of Indian hedgehog signaling molecules in breast cancer. J. Cancer Res. Clin. Oncol. 135: 235-240.
8. Brunner, M., et al. 2010. Expression of hedgehog signaling molecules in Merkel cell carcinoma. Head Neck 32: 333-340.