SANTA CRUZ BIOTECHNOLOGY, INC.

Ihh (C-15): sc-1196

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 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-1196 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IIhh (C-15) is recommended for detection of the C-terminal subunit of Ihh of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (C-15) is also recommended for detection of the C-terminal subunit of Ihh in additional species, including equine.

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.

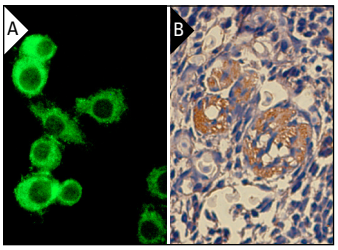
STORAGE

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

RESEARCH USE

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

DATA



Ihh (C-15): sc-1196. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse embryo tissue showing cytoplasmic and extracellular localization (**B**).

SELECTED PRODUCT CITATIONS

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3. Aguilar, A., et al. 2009. P450 oxidoreductase expressed in rat chondrocytes modulates chondrogenesis via cholesterol- and Indian hedgehog-dependent mechanisms. Endocrinology 150: 2732-2739.
4. Capurro, M.I., et al. 2009. Overgrowth of a mouse model of Simpson-Golabi-Behmel syndrome is partly mediated by Indian hedgehog. EMBO Rep. 10: 901-907.
5. Hirata, M., et al. 2009. C/EBPβ promotes transition from proliferation to hypertrophic differentiation of chondrocytes through transactivation of p57. PLoS ONE 4: e4543.
6. Alinger, B., et al. 2009. Hedgehog signaling is involved in differentiation of normal colonic tissue rather than in tumor proliferation. Virchows Arch. 454: 369-379.
7. Yang, Y., et al. 2010. Expression and regulation of hedgehog signaling pathway in pancreatic cancer. Langenbecks Arch. Surg. 395: 515-525.
8. Hatanaka, H., et al. 2010. Identification of the transforming activity of Indian hedgehog by retroviral expression screening. Cancer Sci. 101: 60-64.
9. Tryfonidou, M.A., et al. 2010. Intraspecies disparity in growth rate is associated with differences in expression of local growth plate regulators. Am. J. Physiol. Endocrinol. Metab. 299: E1044-E1052.
10. Qin, S., et al. 2015. Roles of IHH-Gli signaling in synovial fibroblasts proliferation in CIA. Immunol. J. 31: 0937.