

Ihh (I-19): sc-1782

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.

REFERENCES

1. Echelard, Y., et al. 1993. Sonic hedgehog, a member of a family of putative signaling molecules, is implicated in the regulation of CNS polarity. *Cell* 75: 1417-1430.
2. Li, W., et al. 1995. Function of protein kinase A in hedgehog signal transduction and *Drosophila* imaginal disc development. *Cell* 80: 553-562.

SOURCE

Ihh (I-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-1782 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ihh (I-19) is recommended for detection of Ihh, Shh and Dhh amino terminal subunits of mouse, rat, human, *Xenopus laevis* and zebrafish 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ihh (I-19) is also recommended for detection of Ihh, Shh and Dhh amino terminal subunits in additional species, including equine, canine, bovine, porcine and avian.

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.

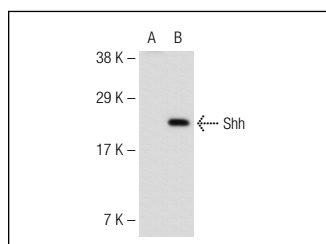
Molecular Weight of Ihh: 45 kDa.

Positive Controls: Shh (m): 293T Lysate: sc-123543 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ihh (I-19): sc-1782. Western blot analysis of Shh expression in non-transfected: sc-117752 (A) and mouse Shh transfected: sc-123543 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. van den Brink, G.R., et al. 2001. Sonic hedgehog regulates gastric gland morphogenesis in man and mouse. *Gastroenterology* 121: 317-328.
2. van den Brink, G.R., et al. 2004. Indian hedgehog is an antagonist of Wnt signaling in colonic epithelial cell differentiation. *Nat. Genet.* 36: 277-282.

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.

PROTOCOLS

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



Try **Ihh (H-12): sc-271101**, our highly recommended monoclonal alternative to Ihh (I-19).