

Dhh (N-19): sc-1193

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: DHH (human) mapping to 12q13.12; Dhh (mouse) mapping to 15 F1.

SOURCE

Dhh (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Dhh of mouse 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-1193 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dhh (N-19) is recommended for detection of the N-terminal subunit of Dhh of mouse, rat, human and *Xenopus laevis* 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).

Dhh (N-19) is also recommended for detection of the N-terminal subunit of Dhh in additional species, including equine and bovine.

Suitable for use as control antibody for Dhh siRNA (h): sc-37208, Dhh siRNA (m): sc-37209, Dhh shRNA Plasmid (h): sc-37208-SH, Dhh shRNA Plasmid (m): sc-37209-SH, Dhh shRNA (h) Lentiviral Particles: sc-37208-V and Dhh shRNA (m) Lentiviral Particles: sc-37209-V.

Molecular Weight of Dhh: 42 kDa.

Positive Controls: mouse embryo extract: sc-364239, F9 cell lysate: sc-2245 or rat brain extract: sc-2392.

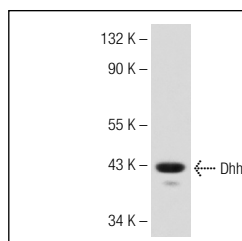
STORAGE

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

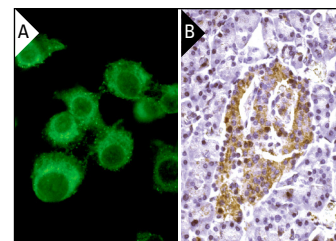
RESEARCH USE

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

DATA



Dhh (N-19): sc-1193. Western blot analysis of Dhh expression in mouse embryo tissue extract.



Dhh (N-19): sc-1193. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islet of Langerhans cells (B).

SELECT PRODUCT CITATIONS

- Niemann, C., et al. 2003. Indian hedgehog and β -catenin signaling: role in the sebaceous lineage of normal and neoplastic mammalian epidermis. *Proc. Natl. Acad. Sci. USA* 100: 11873-11880.
- Endo, H., et al. 2003. A possible paracrine hedgehog signalling pathway in neurofibromas from patients with neurofibromatosis type 1. *Br. J. Dermatol.* 148: 337-341.
- Rahnama, F., et al. 2004. Distinct roles of PTCH2 splice variants in hedgehog signalling. *Biochem. J.* 378: 325-334.
- Fukaya, M., et al. 2006. Hedgehog signal activation in gastric pit cell and in diffuse-type gastric cancer. *Gastroenterology* 131: 14-29.
- Zhu, G., et al. 2007. Sonic and desert hedgehog signaling in human fetal prostate development. *Prostate* 67: 674-684.
- Martinez-Chinchilla, P. and Riobo, N.A. 2008. Purification and bioassay of hedgehog ligands for the study of cell death and survival. *Methods Enzymol.* 446: 189-204.
- 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.

PROTOCOLS

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Try **Dhh (F-9): sc-271168** or **Dhh (G-9): sc-133116**, our highly recommended monoclonal alternatives to Dhh (N-19).