

patched (C-20): sc-6147

BACKGROUND

Overexpression of either Wnt-1 or the GLI proteins have been shown to result in cancer. These proteins exist in a signal cascade downstream of the mammalian homologs of the *Drosophila* hedgehog (hh) and patched (ptc) proteins. The hedgehog protein mediates embryonic and imaginal disc patterning, and patched expression is precisely regulated during embryonic development. Hedgehog enhances the expression of the WNT family of proteins through a signaling cascade involving the GLI transcription factors, while patched functions as a repressor opposing hedgehog's effects. Mutations in the ptc gene, which result in unregulated hedgehog signaling, correlates with the most common type of cancer, basal cell carcinoma, which affects 750,000 individuals annually in the United States. An additional patched family member, patched 2, has been found to be coexpressed with Sonic hedgehog.

CHROMOSOMAL LOCATION

Genetic locus: PTCH1 (human) mapping to 9q22.32; Ptch1 (mouse) mapping to 13 B3.

SOURCE

patched (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of patched 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-6147 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

patched (C-20) is recommended for detection of patched 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).

patched (C-20) is also recommended for detection of patched in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for patched siRNA (h): sc-36192, patched siRNA (m): sc-36191, patched shRNA Plasmid (h): sc-36192-SH, patched shRNA Plasmid (m): sc-36191-SH, patched shRNA (h) Lentiviral Particles: sc-36192-V and patched shRNA (m) Lentiviral Particles: sc-36191-V.

Molecular Weight of patched: 140 kDa.

Positive Controls: human liver extract: sc-363766, HeLa whole cell lysate: sc-2200 or mouse testis extract: sc-2405.

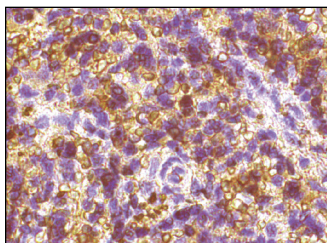
STORAGE

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



patched (C-20): sc-6147. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing membrane and cytoplasmic staining of cells in red pup.

SELECT PRODUCT CITATIONS

- van den Brink, G.R., et al. 2001. Sonic hedgehog regulates gastric gland morphogenesis in man and mouse. *Gastroenterology* 121: 317-328.
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- Karlsson, C., et al. 2009. Identification of a stem cell niche in the zone of Ranvier within the knee joint. *J. Anat.* 215: 355-363.
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- Peacock, Z.S., et al. 2010. Involvement of PTCH1 mutations in the calcifying epithelial odontogenic tumor. *Oral Oncol.* 46: 387-392.


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