

Hhip (H-280): sc-25465

BACKGROUND

Hedgehog (Hh) signaling proteins are critical for growth and tissue patterning during development. Patched (Ptc), a putative 12 transmembrane receptor, binds to Sonic hedgehog and is suspected to be a negative regulator of Hh signaling. A family member of patched, designated patched 2, has been found to be coexpressed with Sonic hedgehog. Smoothened (Smo), a seven transmembrane receptor, is complexed with patched in many tissues and is believed to be an essential component in the Hh signaling pathway. Hhip (hedgehog-interacting protein) is able to bind to and may be a transcriptional target of all Hh proteins. Binding of Hhip to Hh proteins attenuates hedgehog signaling.

REFERENCES

1. Stone, D.M., et al. 1996. The tumour-suppressor gene patched encodes a candidate receptor for Sonic hedgehog. *Nature* 384: 129-134.
2. Marigo, V., et al. 1996. Regulation of patched by Sonic hedgehog in the developing neural tube. *Proc. Natl. Acad. Sci. USA* 93: 9346-9351.

CHROMOSOMAL LOCATION

Genetic locus: HHIP (human) mapping to 4q31.21; Hhip (mouse) mapping to 8 C2.

SOURCE

Hhip (H-280) is a rabbit polyclonal antibody raised against amino acids 1-280 of Hhip 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.

RESEARCH USE

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

APPLICATIONS

Hhip (H-280) is recommended for detection of Hhip 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).

Hhip (H-280) is also recommended for detection of Hhip in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Hhip siRNA (h): sc-43835, Hhip siRNA (m): sc-40164, Hhip shRNA Plasmid (h): sc-43835-SH, Hhip shRNA Plasmid (m): sc-40164-SH, Hhip shRNA (h) Lentiviral Particles: sc-43835-V and Hhip shRNA (m) Lentiviral Particles: sc-40164-V.

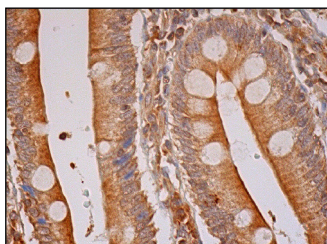
Molecular Weight of Hhip: 68 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Hhip (H-280): sc-25465. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Taniguchi, H., et al. 2007. Transcriptional silencing of hedgehog-interacting protein by CpG hypermethylation and chromatin structure in human gastrointestinal cancer. *J. Pathol.* 213: 131-139.
2. Eichenmüller, M., et al. 2009. Blocking the hedgehog pathway inhibits hepatoblastoma growth. *Hepatology* 49: 482-490.
3. Lin, A.C., et al. 2009. Modulating hedgehog signaling can attenuate the severity of osteoarthritis. *Nat. Med.* 15: 1421-1425.
4. O'Toole, S.A., et al. 2011. Hedgehog overexpression is associated with stromal interactions and predicts for poor outcome in breast cancer. *Cancer Res.* 71: 4002-4014.

STORAGE

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

MONOS
Satisfaction
Guaranteed

Try **Hhip (5D11): sc-293265**, our highly recommended monoclonal alternative to Hhip (H-280).