

# Hhip (M-17): sc-9406

## 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 co-expressed 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. Goodrich, L.V., et al. 1996. Conservation of the hedgehog/patched signaling pathway from flies to mice: induction of a mouse patched gene by Hedgehog. *Genes Dev.* 10: 301-312.
3. Marigo, V., et al. 1996. Regulation of patched by Sonic hedgehog in the developing neural tube. *Proc. Natl. Acad. Sci. USA* 93: 9346-9351.
4. Weed, M., et al. 1997. The role of Sonic hedgehog in vertebrate development. *Matrix Biol.* 16: 53-58.
5. Motoyama, J., et al. 1998. Ptch2, a second mouse patched gene is co-expressed with Sonic hedgehog. *Nat. Genet.* 18: 104-106.
6. Chuang, P.T., et al. 1999. Vertebrate hedgehog signalling modulated by induction of a hedgehog-binding protein. *Nature* 397: 617-621.

## CHROMOSOMAL LOCATION

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

## SOURCE

Hhip (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Hhip 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-9406 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Hhip (M-17) is recommended for detection of Hhip protein 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Hhip (M-17) 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.

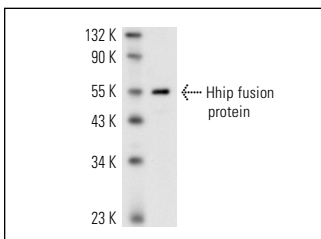
Molecular Weight of Hhip: 68 kDa.

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 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



Hhip (M-17): sc-9406. Western blot analysis of human recombinant Hhip fusion protein.

## RESEARCH USE

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

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Try **Hhip (5D11): sc-293265**, our highly recommended monoclonal alternative to Hhip (M-17).