

Shh Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: M	Sensitivity: Transfected Only	MW (kDa): 19, 42, 45	Source/Isotype: Rabbit	UniProt ID: #Q15465	Entrez-Gene Id: 6469
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Shh antibody detects both the precursor and mature forms of transfected Shh.

Species predicted to react based on 100% sequence homology

Human

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His35 of human Shh. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Hedgehog proteins (Hh) are secreted signaling proteins that play many roles during animal development. Aberrant Hh signaling activity can be associated with numerous birth defects and uncontrolled Hh pathway activation is linked to the development of several types of cancers (1-2). The three identified vertebrate Hh genes are Sonic (*Shh*), Indian (*Ihh*) and Desert (*Dhh*), all of which have distinct as well as overlapping roles (3-5). Hh proteins are synthesized as 45 kDa precursors that undergo auto-cleavage to generate a 19 kDa amino-terminal peptide (Hh-N) and a carboxy-terminal peptide (Hh-C). The Hh-N becomes covalently attached to a cholesterol molecule at its carboxy terminus and acetylated at its amino terminus. This doubly modified Hh-N peptide is released from cells and responsible for all known Hedgehog signaling activity (6).

Background References

- Ingham, P.W. and McMahon, A.P. (2001) *Genes Dev.* 15, 3059-3087.
- McMahon, A.P. et al. (2003) *Curr. Top Dev. Biol.* 53, 1-114.
- Zhang, X.M. et al. (2001) *Cell* 106, 781-792.
- Adolphe, C. et al. (2004) *Development* 131, 5009-5019.
- Pathi, S. et al. (2001) *Mech. Dev.* 106, 107-117.
- Bijlsma, M.F. et al. (2004) *Bioessays* 26, 387-394.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

M: Mouse

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