

**#2207** Store at -20°C

## Shh (C9C5) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H R	Endogenous	19, (45 precursor)	Rabbit IgG	#Q15465	6469

### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

Shh (C9C5) Rabbit mAb detects the endogenous levels of total Shh protein. This antibody does not cross-react with transfected IHH and DHH.

### Species predicted to react based on 100% sequence homology:

Mouse, Chicken, Xenopus, Zebrafish

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu53 of human Shh.

### 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

**WB:** Western Blotting

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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