

#2207 Store at -20°C

Shh (C9C5) Rabbit mAb



100 µl
 (10 Western mini-blot)

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This product is for *in vitro* research use only and is not intended for use in humans or animals.
 This product is not intended for use as a therapeutic or in diagnostic procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, R, (M, X, Z)	19, 45 kDa	Rabbit IgG**

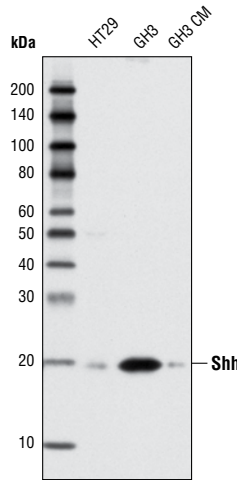
Background: Hedgehog proteins (Hh) are secreted signaling proteins that play many roles during animal development. Aberrant Hh signaling activity can be associated with numerous birth defects and uncontrolled Hh pathway activation is linked to the development of several types of cancers (1-2). The three 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 amino-terminal peptide 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).

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.

Source/Purification: Monoclonal antibody is produced by immunizing rabbits with a synthetic peptide (KLH-coupled) corresponding to residues surrounding Glu53 of human Shh.

Background References:

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



Western blot analysis of extracts from HT29 and GH3 cells, and GH3 cell conditioned medium (CM), using Shh (C9C5) Rabbit mAb.

Entrez-Gene ID #6469
Swiss-Prot Acc. #Q15465

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.

***Species cross-reactivity is determined by Western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

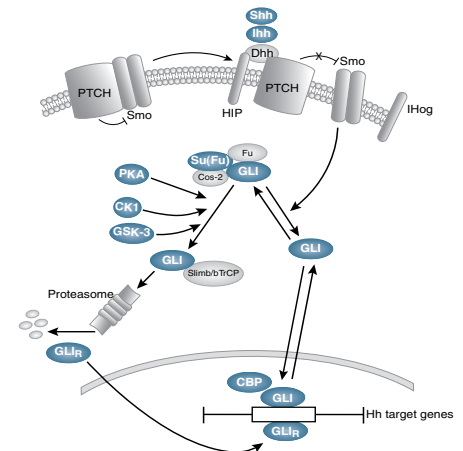
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Companion Products:

- Shh Antibody #2287
- Shh/Ihh Antibody #2271
- GLI1 Antibody #2553
- GLI2 (R770) Antibody #2585
- PTCH1 (C53A3) Rabbit mAb #2468
- PTCH2 (G1191) Antibody #2470
- Phototope®-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody #7071
- Anti-rabbit IgG, HRP-linked Antibody #7074
- Prestained Protein Marker, Broad Range (Premixed Format) #7720
- Biotinylated Protein Ladder #7727
- 20X LumiGLO® Reagent and 20X Peroxide #7003

Please visit www.cellsignal.com for a complete listing of recommended companion products.



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

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebra fish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.