

Product datasheet for **TA381477**

Sonic Hedgehog (SHH) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	WB,1:500 - 1:2000 IHC,1:50 - 1:100 IF,1:50 - 1:200
Reactivity:	Human, Mouse, Rat
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	A synthetic peptide of human Sonic Hedgehog (Sonic Hedgehog (Shh))
Formulation:	Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	49kDa
Gene Name:	sonic hedgehog
Database Link:	Entrez Gene 6469 Human Q15465



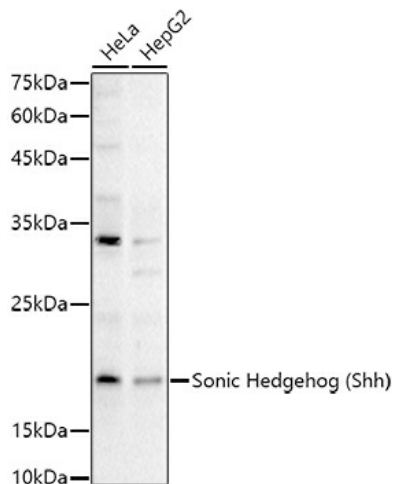
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Background:

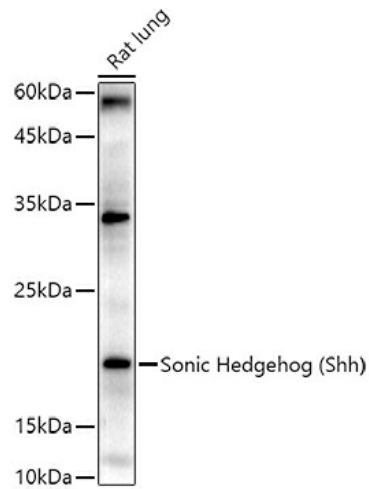
This gene encodes a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to the sonic hedgehog protein of *Drosophila*, this protein is the most similar. The protein is made as a precursor that is autocatalytically cleaved; the N-terminal portion is soluble and contains the signalling activity while the C-terminal portion is involved in precursor processing. More importantly, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the developing embryo. Defects in this protein or in its signalling pathway are a cause of holoprosencephaly (HPE). It is also thought that mutations in this gene or in its signalling pathway may be responsible for VACTERL syndrome. Additionally, mutations in a long range enhancer located approximately 1 megabase upstream of this gene disrupt limb patterning and can result in preaxial polydactyly.

Synonyms:

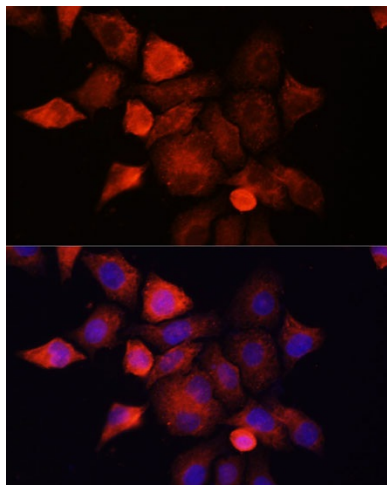
HHG-1; HHG1; HLP3; HPE3; MCOPCB5; SMMCI; TPT; TPTPS

Product images:

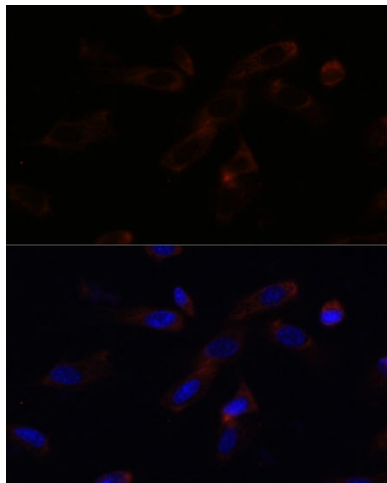
Western blot analysis of extracts of various cell lines, using Sonic Hedgehog (Shh) antibody (TA381477) at 1:1000 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 180s.



Western blot analysis of extracts of Rat lung, using Sonic Hedgehog (Shh) antibody (TA381477) at 1:1000 dilution. |Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. |Lysates/proteins: 25ug per lane. |Blocking buffer: 3% nonfat dry milk in TBST. |Detection: ECL Enhanced Kit . |Exposure time: 180s.



Immunofluorescence analysis of HeLa cells using Sonic Hedgehog (Sonic Hedgehog (Shh)) Polyclonal Antibody (TA381477) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH-3T3 cells using Sonic Hedgehog (Sonic Hedgehog (Shh)) Polyclonal Antibody (TA381477) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.