

Product datasheet for **CF500041**

Sonic Hedgehog (SHH) Mouse Monoclonal Antibody [Clone ID: OTI10H6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI10H6
Applications:	IF, WB
Recommended Dilution:	WB 1:1000~2000, IF 1:100
Reactivity:	Human, Dog, Rat, Monkey, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 24-197 of human SHH (NP_000184) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	27.6 kDa
Gene Name:	sonic hedgehog signaling molecule
Database Link:	NP_000184 Entrez Gene 20423 Mouse Entrez Gene 29499 Rat Entrez Gene 608860 Dog Entrez Gene 716553 Monkey Entrez Gene 6469 Human Q15465



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Background:

SHH 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.

Synonyms:

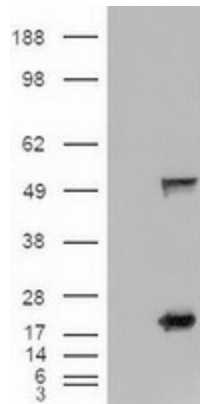
HHG1; HLP3; HPE3; MCOPCB5; SMMCI; TPT; TPTPS

Protein Families:

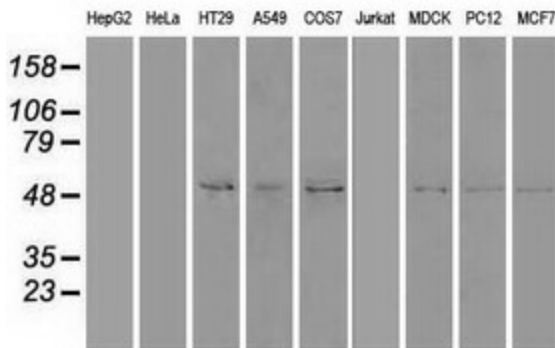
Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

Protein Pathways:

Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer

Product images:


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SHH (Cat# [RC222175], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SHH (Cat# [TA500041]). Positive lysates [LY424868] (100ug) and [LC424868] (20ug) can be purchased separately from OriGene.



Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-SHH monoclonal antibody.

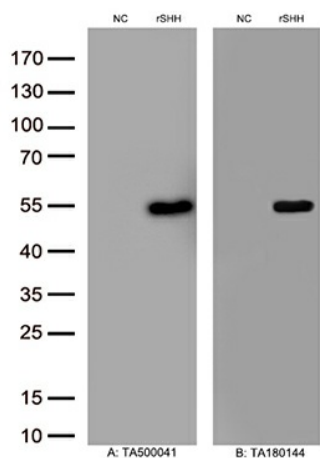
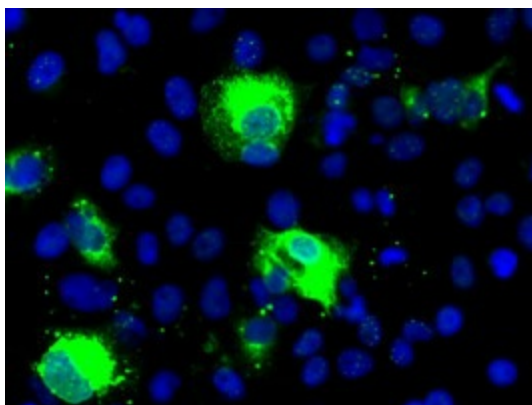


Figure A, Western blot analysis of overexpressed lysates(15ug per lane) from HEK293T cells transfected with empty plasmid ([PS100001], NC) , rat SHH plasmid ([RR208777], rSHH) using anti-SHH antibody [TA500041](1:500). Figure B, Western blot analysis of the same samples as figure A with anti-DDK antibody ([TA180144], 1:1000)



Anti-SHH mouse monoclonal antibody ([TA500041]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY SHH ([RC222175]).