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Product datasheet for CF500040

Sonic Hedgehog (SHH) Mouse Monoclonal Antibody [Clone ID: OTI3A2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3A2
Applications:	IF, WB
Recommended Dilution:	WB: 1:2000, IF (1:100)
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Recombinant protein expressed in E.coli corresponding to amino acids 24-197 of human SHH
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 (Actual 22 kDa/55 kDa)
Gene Name:	sonic hedgehog signaling molecule
Database Link:	NP_000184 Entrez Gene 20423 MouseEntrez Gene 29499 RatEntrez Gene 6469 Human Q15465

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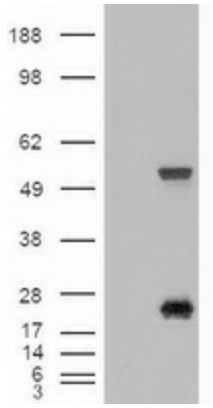
Background: SHH is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to the sonic hedgehog 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

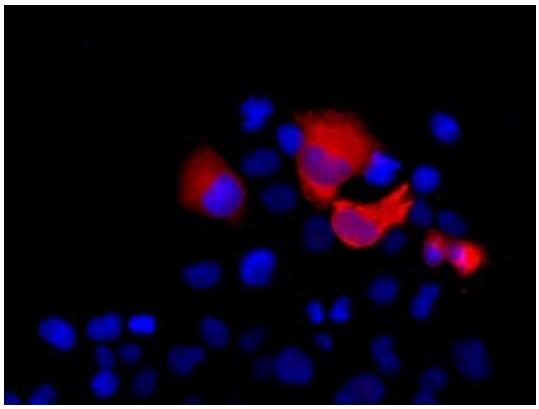
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

Protein Pathways: Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer

Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY SHH ([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. Positive lysates [LY424868] (100ug) and [LC424868] (20ug) can be purchased separately from OriGene.



Anti-SHH mouse monoclonal antibody ([TA500040]) immunofluorescent staining (Red) of COS7 cells transiently transfected by pCMV6-ENTRY SHH ([RC222175]).