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Product datasheet for TA336923

Sonic Hedgehog (SHH) Mouse Monoclonal Antibody [Clone ID: 5H4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	5H4
Applications:	ELISA, FC, ICC/IF, IHC, WB
Recommended Dilution:	Immunocytochemistry/ Immunofluorescence, Flow Cytometry: 1:200-1:400, ELISA: 1:10000, Western Blot: 1:500-1:2000, Immunohistochemistry-Paraffin: 1:200-1:1000, Immunohistochemistry
Reactivity:	Human, Mouse, Primate
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified recombinant fragment of human Sonic Hedgehog (amino acids 26-170) expressed in E. coli. [UniProt# Q15465]
Formulation:	Preservative: 0.05% Sodium Azide. Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Ascites
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	49.6 kDa
Gene Name:	sonic hedgehog
Database Link:	NP_000184 Entrez Gene 20423 MouseEntrez 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), a disorder in which the developing forebrain fails to correctly separate into right and left hemispheres. HPE is manifested by facial deformities. It is also thought that mutations in this gene or in its signalling pathway may be responsible for VACTERL syndrome, which is characterized by vertebral defects, anal atresia, tracheoesophageal fistula with esophageal atresia, radial and renal dysplasia, cardiac anomalies, and limb abnormalities. Additionally, mutations in a long range enhancer located approximately 1 megabase upstream of this gene disrupt limb patterning and can result in preaxial polydactyly.

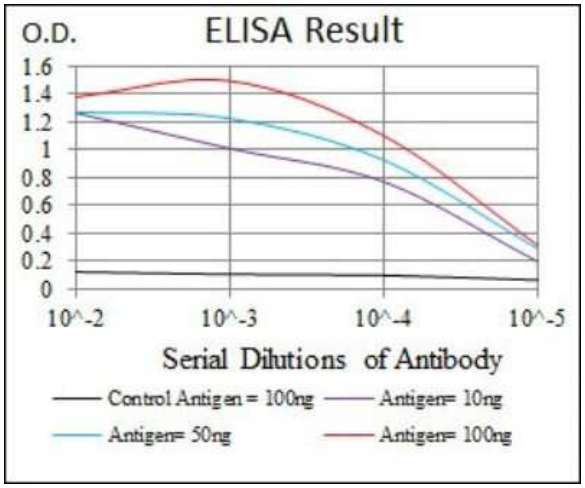
Synonyms: HHG1; HLP3; HPE3; MCOPCB5; SMMCI; TPT; TPTPS

Note: This Sonic Hedgehog (5H4) antibody is useful for Western blot, Immunohistochemistry on paraffin-embedded sections, Flow Cytometry and ELISA.

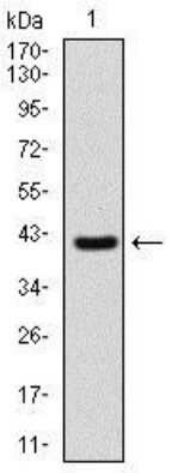
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

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

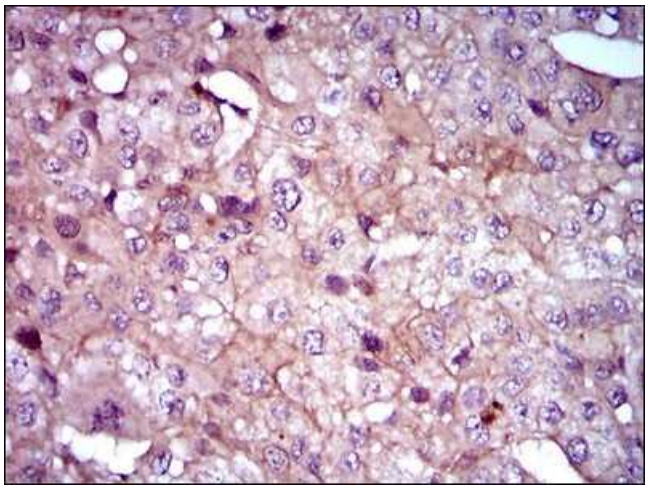
Product images:



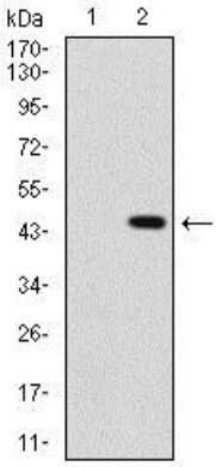
ELISA: Sonic Hedgehog/Shh Antibody (5H4) TA336923 - Red: Control Antigen (100ng); Purple: Antigen (10ng); Green: Antigen (50ng); Blue: Antigen (100ng).



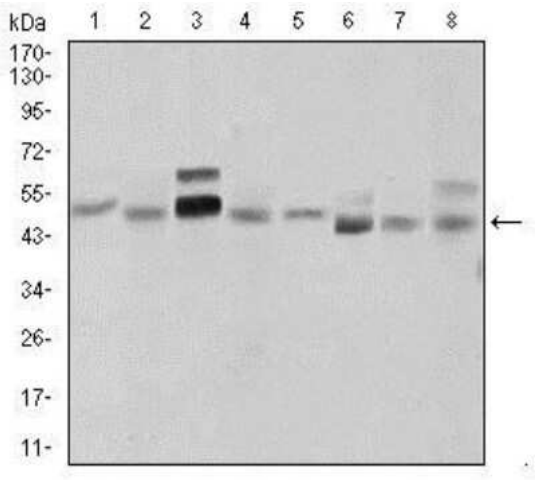
Western Blot: Sonic Hedgehog/Shh Antibody (5H4) TA336923 - Analysis using Sonic Hedgehog mAb against human Sonic Hedgehog recombinant protein. (Expected MW is 41 kDa)



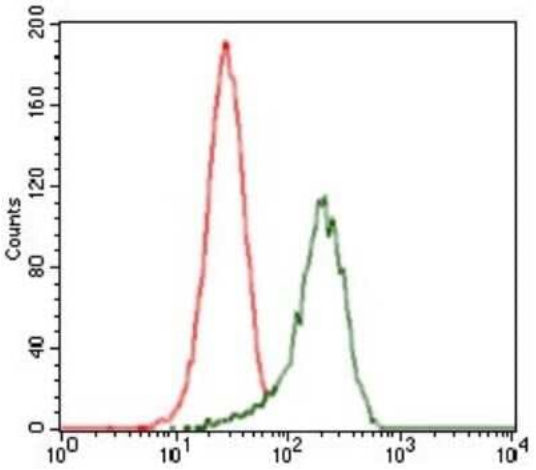
Immunohistochemistry-Paraffin: Sonic Hedgehog/Shh Antibody (5H4) TA336923 - Analysis of paraffin-embedded liver cancer tissues using Sonic Hedgehog mouse mAb with DAB staining.



Western Blot: Sonic Hedgehog/Shh Antibody (5H4) TA336923 - Analysis using Sonic Hedgehog mAb against HEK293 (1) and Sonic Hedgehog (AA: 26-161)-hIgGFc transfected HEK293 (2) cell lysate.



Western Blot: Sonic Hedgehog/Shh Antibody (5H4) TA336923 - Analysis using Sonic Hedgehog mouse mAb against LNCaP (1), HepG2 (2), PANC-1 (3),HeLa (4), SK-N-SH (5), F9 (6), NIH3T3 (7), and COS7 (8) cell lysate.



Flow Cytometry: Sonic Hedgehog/Shh Antibody (5H4) TA336923 - Analysis of HeLa cells using Sonic Hedgehog mouse mAb (green) and negative control (red).