

## Product datasheet for **TA500040AM**

### Sonic Hedgehog (SHH) Mouse Monoclonal Antibody (Biotin conjugated) [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:            | PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.  |
| Concentration:          | 0.5 mg/ml   |
| Purification:           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)   |
| Conjugation:            | Biotin  |
| 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:          | <a href="#">NP_000184</a><br><a href="#">Entrez Gene 20423 Mouse</a> <a href="#">Entrez Gene 29499 Rat</a> <a href="#">Entrez Gene 6469 Human</a><br><a href="#">Q15465</a> |



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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

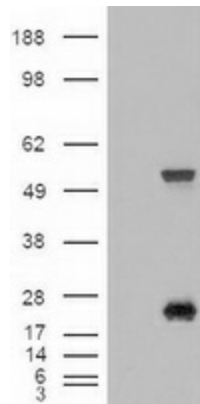
**Protein Families:**

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

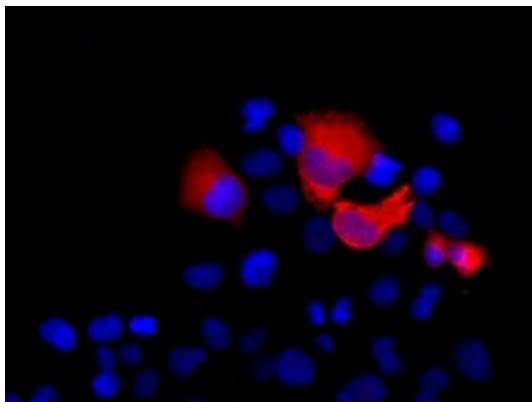
**Protein Pathways:**

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]).