



**Category:** Monoclonal Antibodies  
**Product Name:** Mouse Monoclonal Antibody to SHH

**Catalog Number:** MAB-606030056

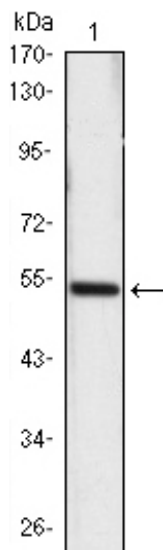


Figure 1: Western blot analysis using SHH mAb against SHH-hIgGfc transfected HEK293 cell lysate.

Lot#:  
Clone#: 8G3  
Host and isotype: Mouse IgG1  
Size: 0.1ml  
MW: 49.6kDa  
Aliases: TPT; HHG1; HLP3;  
HPE3; SMMCI; TPTPS;  
MCOPCB5; SHH  
Entrez Gene: 6469  
Species reactivity: Human

**Description** 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.

**Immunogen** Purified recombinant fragment of human SHH expressed in *E. Coli*.

**Application** Western Blotting: 1/500 - 1/2000.  
ELISA: Propose dilution 1/10000.  
Not yet tested in other applications.  
Determining optimal working dilutions by titration test.

**Formulation** Ascitic fluid containing 0.03% sodium azide.

**Storage** Store at 4°C, for long term storage, store at -20°C.

**Related product References** 1. Cancer Lett. 2010 Jan 1;287(1):44-53.  
2. Oncogene. 2009 Oct 8;28(40):3513-25.  
3. J Biol Chem. 2009 Nov 20;284(47):32562-71.

**For Research Use Only**

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