

Product datasheet for **AM06459SU-N**

Sonic Hedgehog (SHH) Mouse Monoclonal Antibody [Clone ID: 8G3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	8G3
Applications:	ELISA, IHC, WB
Recommended Dilution:	ELISA: 1/10000. Western Blot: 1/500-1/2000. Immunohistochemistry on Paraffin Sections: 1/200.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified recombinant fragment of human SHH expressed in E. Coli.
Specificity:	This antibody recognizes Human Sonic Hedgehog / SHH. Other species not tested.
Formulation:	State: Ascites Preservative: 0.03% Sodium Azide
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	49.6 kDa
Gene Name:	sonic hedgehog
Database Link:	Entrez Gene 6469 Human Q15465



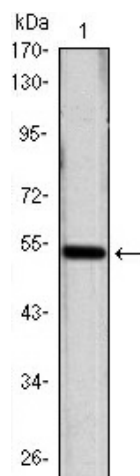
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Background:

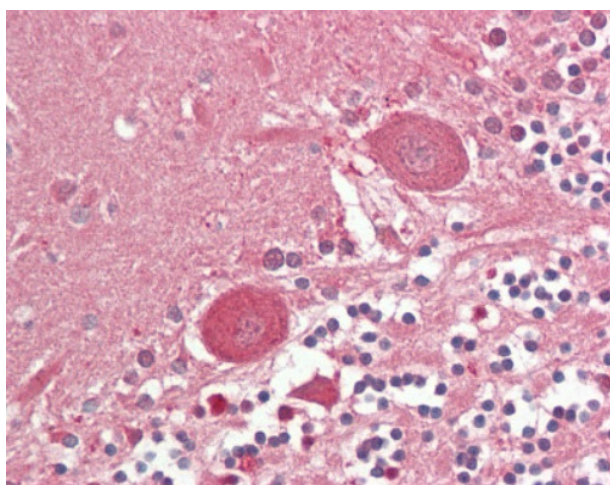
This gene encodes a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to 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:

Sonic hedgehog protein, HHG-1

Product images:

Western blot analysis using SHH mAb against SHH (AA: 26-161)-hlgGfc transfected HEK293 cell lysate.



Human Brain, Cerebellum: Formalin-Fixed, Paraffin-Embedded (FFPE)