

SHH Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP12343c**Specification**

SHH Antibody (Center) Blocking peptide - Product InformationPrimary Accession [Q15465](#)**SHH Antibody (Center) Blocking peptide - Additional Information****Gene ID** 6469**Other Names**

Sonic hedgehog protein, SHH, HHG-1, Sonic hedgehog protein N-product, Sonic hedgehog protein C-product, SHH

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SHH Antibody (Center) Blocking peptide - Protein Information**Name** SHH ([HGNC:10848](#))**Function**

[Sonic hedgehog protein]: The C-terminal part of the sonic hedgehog protein precursor displays an autoproteolysis and a cholesterol transferase activity (By similarity). Both activities result in the cleavage of the full-length protein into two parts (ShhN and ShhC) followed by the covalent attachment of a cholesterol moiety to the C-terminal of the newly generated ShhN (By similarity). Both activities occur in the reticulum endoplasmic (By similarity). Once cleaved, ShhC is degraded in the endoplasmic reticulum (By similarity).

Cellular Location

[Sonic hedgehog protein]: Endoplasmic reticulum membrane. Golgi apparatus membrane. Secreted Note=Co-localizes with HHAT in the ER and Golgi membrane

SHH Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

SHH Antibody (Center) Blocking peptide - Images

SHH Antibody (Center) Blocking peptide - 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.

SHH Antibody (Center) Blocking peptide - References

Maloverjan, A., et al. J. Biol. Chem. 285(39):30079-30090(2010) Li, F., et al. Arterioscler. Thromb. Vasc. Biol. 30(9):1787-1794(2010) Lesiak, A., et al. Pol. Merkur. Lekarski 29(170):141-143(2010) Choi, S.S., et al. Hepatology 52(1):278-290(2010) Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :