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SHH Antibody (Center) Blocking peptide

Synthetic peptide
Catalog # BP12343c

Specification

SHH Antibody (Center) Blocking peptide - Product Information

Primary 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 endoplasmic reticulum (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 inpatterning the early embryo. It has been implicated as the keyinductive signal in patterning of the ventral neural tube, theanterior-posterior limb axis, and the ventral somites. Of threehuman proteins showing sequence and functional similarity to thesonic hedgehog protein of Drosophila, this protein is the mostsimilar. The protein is made as a precursor that isautocatalytically cleaved; the N-terminal portion is soluble andcontains the signalling activity while the C-terminal portion isinvolved in precursor processing. More importantly, the C-terminalproduct covalently attaches a cholesterol moiety to the N-terminalproduct, restricting the N-terminal product to the cell surface andpreventing it from freely diffusing throughout the developingembryo. Defects in this protein or in its signalling pathway are acause of holoprosencephaly (HPE), a disorder in which thedeveloping forebrain fails to correctly separate into right andleft hemispheres. HPE is manifested by facial deformities. It isalso thought that mutations in this gene or in its signallingpathway may be responsible for VACTERL syndrome, which ischaracterized by vertebral defects, anal atresia, tracheoesophagealfistula with esophageal atresia, radial and renal dysplasia,cardiac anomalies, and limb abnormalities. Additionally, mutationsin a long range enhancer located approximately 1 megabase upstreamof this gene disrupt limb patterning and can result in preaxialpolydactyly.

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) :