10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

SHH Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21273b

Specification

SHH Blocking Peptide (C-term) - Product Information

Primary Accession Q15465

SHH Blocking Peptide (C-term) - Additional Information

Gene ID 6469

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

Target/Specificity
The synthetic peptide sequence is selected from aa 368-381 of HUMAN 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 Blocking Peptide (C-term) - 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

SHH Blocking Peptide (C-term) - Background

Intercellular signal essential for a variety of patterning events during development: signal produced by the notochord that induces ventral cell fate in the neural tube and somites, and the polarizing signal for patterning of the anterior- posterior axis of the developing limb bud. Displays both floor plate- and motor neuron-inducing activity. The threshold concentration of N-product required for motor neuron induction is 5-fold lower than that required for floor plate induction. Activates the transcription of target genes by interacting with its receptor PTCH1 to prevent normal inhibition by PTCH1 on the constitutive signaling activity of SMO (By similarity).

SHH Blocking Peptide (C-term) - References

Marigo V.,et al.Genomics 28:44-51(1995).
Tate G.,et al.J. Biochem. Mol. Biol. Biophys. 4:27-34(2000).
Hillier L.W.,et al.Nature 424:157-164(2003).
Scherer S.W.,et al.Science 300:767-772(2003).
Pepinsky R.B.,et al.J. Biol. Chem. 273:14037-14045(1998).

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 N-product]: Cell membrane {ECO:0000250|UniProtKB:Q62226}; Lipid-anchor {ECO:0000250|UniProtKB:Q62226}. Note=The dual-lipidated sonic hedgehog protein N-product (ShhNp) is firmly tethered to the cell membrane where it forms multimers (PubMed:24522195). Further solubilization and release from the cell surface seem to be achieved through different mechanisms, including the interaction with DISP1 and SCUBE2, movement by lipoprotein particles, transport by cellular extensions called cytonemes or by the proteolytic removal of both terminal lipidated peptides (PubMed:26875496, PubMed:24522195)

SHH Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides