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SMO Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP16325c

Specification

SMO Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q99835

SMO Antibody (Center) Blocking Peptide - Additional Information

Gene ID 6608

Other Names
Smoothened homolog, SMO, Protein Gx, SMO, SMOH

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.

SMO Antibody (Center) Blocking Peptide - Protein Information

Name SMO

Synonyms SMOH

Function
G protein-coupled receptor which associates with the patched protein (PTCH) to transduce hedgehog protein signaling. Binding of sonic hedgehog (SHH) to its receptor patched prevents inhibition of smoothened (SMO) by patched. When active, SMO binds to and sequesters protein kinase A catalytic subunit PRKACA at the cell membrane, preventing PRKACA-mediated phosphorylation of GLI transcription factors which releases the GLI proteins from PRKACA-mediated inhibition and allows for transcriptional activation of hedgehog pathway target genes (By similarity). Required for the accumulation of KIF7, GLI2 and GLI3 in the cilia (PubMed:19592253). Interacts with DLG5 at the ciliary base to induce the accumulation of KIF7 and GLI2 at the ciliary tip for GLI2 activation (By similarity).

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:P56726}; Multi-pass membrane protein. Cell projection, cilium. Note=Cilium localization is promoted by SHH and is required for activity. {ECO:0000250|UniProtKB:P56726}

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SMO Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

SMO Antibody (Center) Blocking Peptide - Images

SMO Antibody (Center) Blocking Peptide - Background

The protein encoded by this gene is a G protein-coupledreceptor that interacts with the patched protein, a receptor forhedgehog proteins. The encoded protein tranduces signals to otherproteins after activation by a hedgehog protein/patched proteincomplex.

SMO Antibody (Center) Blocking Peptide - References

Zhang, L., et al. Oral Dis 16(8):818-822(2010)Desch, P., et al. Oncogene 29(35):4885-4895(2010)Walter, K., et al. Clin. Cancer Res. 16(6):1781-1789(2010)Hirotsu, M., et al. Mol. Cancer 9, 5 (2010) :Rittie, L., et al. Aging Cell 8(6):738-751(2009)