

SMO / Smoothened Antibody (aa68-117)
Rabbit Polyclonal Antibody
Catalog # ALS13686

Specification

SMO / Smoothened Antibody (aa68-117) - Product Information

Application	WB, IHC
Primary Accession	O99835
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	86kDa KDa

SMO / Smoothened Antibody (aa68-117) - Additional Information

Gene ID 6608

Other Names

Smoothened homolog, SMO, Protein Gx, SMO, SMOH

Target/Specificity

SMO Antibody detects endogenous levels of total SMO protein.

Reconstitution & Storage

Store at -20°C for up to one year.

Precautions

SMO / Smoothened Antibody (aa68-117) is for research use only and not for use in diagnostic or therapeutic procedures.

SMO / Smoothened Antibody (aa68-117) - 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

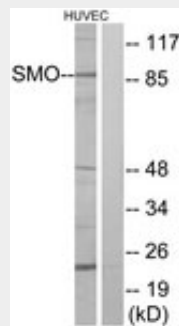
Cell membrane {ECO:0000250|UniProtKB:P56726}; Multi-pass membrane protein. Cell projection, cilium. Note=Cilium localization is promoted by SHH and is required for activity. {ECO:0000250|UniProtKB:P56726}

SMO / Smoothened Antibody (aa68-117) - Protocols

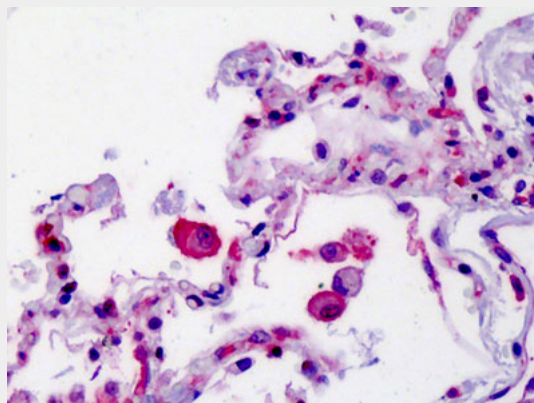
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SMO / Smoothened Antibody (aa68-117) - Images



Western blot of extracts from HUVEC cells, using SMO Antibody.



Anti-SMO antibody IHC of human lung.

SMO / Smoothened Antibody (aa68-117) - Background

G protein-coupled receptor that probably associates with the patched protein (PTCH) to transduce the hedgehog's proteins signal. Binding of sonic hedgehog (SHH) to its receptor patched is thought to prevent normal inhibition by patched of smoothened (SMO). Required for the accumulation of KIF7 and GLI3 in the cilia.

SMO / Smoothened Antibody (aa68-117) - References

Stone D.M., et al. Nature 384:129-134(1996).

Xie J., et al. Nature 391:90-92(1998).

Jiang N., et al. Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.

Scherer S.W., et al. Science 300:767-772(2003).

Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.