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SMO Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50630

Specification

SMO Antibody - Product Information

Application	**WB**
Primary Accession	Q99835
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**86 KDa**
Antigen Region	**85-116**

SMO Antibody - Additional Information

Gene ID 6608

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

Dilution
WB~~ 1:500

Format
Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions
-20℃

SMO Antibody - 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).

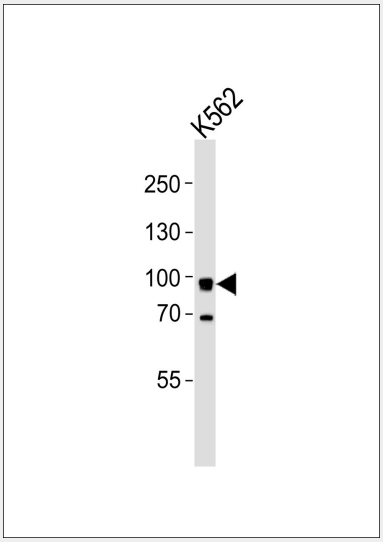
Cellular Location
Cell membrane {ECO:0000250|UniProtKB:P56726}; Multi-pass membrane protein. Cell projection, cilium. Note=Cilium localization is promoted by SHH and is required for activity. {ECO:0000250|UniProtKB:P56726}

SMO Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SMO Antibody - Images



Western blot analysis of lysate from K562 cell line,using SMO Antibody(AP50630). AP50630 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.

SMO Antibody - 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 Antibody - 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.
Endoh-Yamagami S.,et al.Curr. Biol. 19:1320-1326(2009).

Seo S.,et al.PLoS Genet. 7:E1002358-E1002358(2011).

SMO Antibody - Citations

- Novel-smoothened inhibitors for therapeutic targeting of naïve and drug-resistant hedgehog pathway-driven cancers.