

**SMO Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16325c**

**Specification**

**SMO Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q99835</a>
Other Accession	<a href="#">NP_005622.1</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	86397
Antigen Region	539-567

**SMO Antibody (Center) - Additional Information**

**Gene ID 6608**

**Other Names**

Smoothened homolog, SMO, Protein Gx, SMO, SMOH

**Target/Specificity**

This SMO antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 539-567 amino acids from the Central region of human SMO.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SMO Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**SMO Antibody (Center) - 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

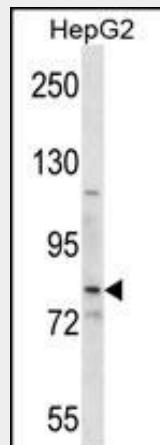
Cell membrane {ECO:0000250|UniProtKB:P56726}; Multi-pass membrane protein. Cell projection, cilium. Note=Cilium localization is promoted by SHH and is required for activity. {ECO:0000250|UniProtKB:P56726}

#### SMO Antibody (Center) - 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 Antibody (Center) - Images



SMO Antibody (Center) (Cat. #AP16325c) western blot analysis in HepG2 cell line lysates (35ug/lane). This demonstrates the SMO antibody detected the SMO protein (arrow).

#### SMO Antibody (Center) - Background

The protein encoded by this gene is a G protein-coupled receptor that interacts with the patched protein, a receptor for hedgehog proteins. The encoded protein transduces signals to other proteins after activation by a hedgehog protein/patched protein complex.

### **SMO Antibody (Center) - 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)

### **SMO Antibody (Center) - Citations**

- [The sonic hedgehog pathway mediates Tongxinluo capsule-induced protection against blood-brain barrier disruption after ischemic stroke in mice.](#)
- [Dehydroeffusol inhibits viability and epithelial-mesenchymal transition through the Hedgehog and Akt/mTOR signaling pathways in neuroblastoma cells.](#)
- [Salinomycin exerts anticancer effects on human breast carcinoma MCF-7 cancer stem cells via modulation of Hedgehog signaling.](#)