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Datasheet for 600-401-MG0

Smoothened Antibody

Overview

Description:	Anti-Smoothened (RABBIT) Antibody - 600-401-MG0
Item No.:	600-401-MG0
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	SMO (Smoothened, Frizzled Class Receptor) receptors are non-classical G protein-coupled receptors that probably associates with the patched protein (PTCH) to transduce the hedgehogs proteins signal. The binding of sonic hedgehog (SHH) to its receptor patched is thought to prevent normal inhibition by patched of smoothened (SMO). It is required for the accumulation of KIF7, GLI2 and GLI3 in the cilia. And it interacts with DLG5 at the ciliary base to induce the accumulation of KIF7 and GLI2 at the ciliary tip for GLI2 activation. Diseases associated with SMO include Curry-Jones Syndrome and Basal Cell Carcinoma. Anti-Smoothened Antibody is useful for researchers interested in Cancer research.
Synonyms:	Rabbit Anti-SMO Antibody, Smoothened Frizzled Class Receptor, Smoothened Seven Transmembrane Spanning Receptor, Smoothened Frizzled Family Receptor, Frizzled Family Member 11, Protein GX, SMOH, Seven Transmembrane Helix Receptor, Smoothened (Drosophila) Homolog, Smoothened Homolog (Drosophila), Smoothened Homolog, FZD11, CRJS, Gx
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	SMO
Reactivity:	Human

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Smoothened antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal portion of human Smoothened conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human SMO. This product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with the antigen based on 100% homology with the immunizing sequence to mouse and rat.
Relevant Links:	• UniProtKB - Q99835 • NBCI - NP_005622.1 • GeneID - 6608

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	Anti-Smoothened Antibody has been tested in ELISA, WB, and IHC. Expect a band at ~86.4kDa in western blot using appropriate lysates and tissues. Positive control used: Overexpressing lysate and HEK293T in Western Blot; and Human Lung Tissue in Immunohistochemistry.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IHC:	1:100
WB:	1 µg/ml

Formulation

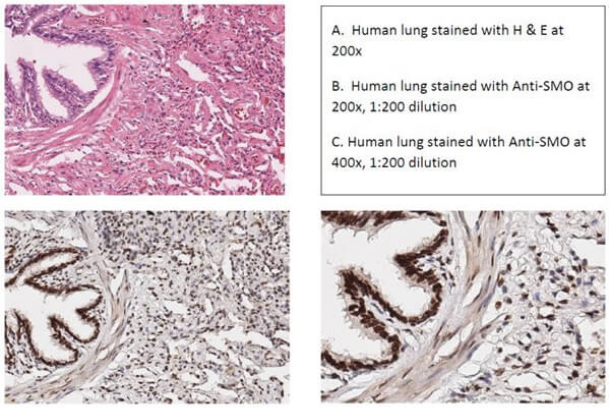
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

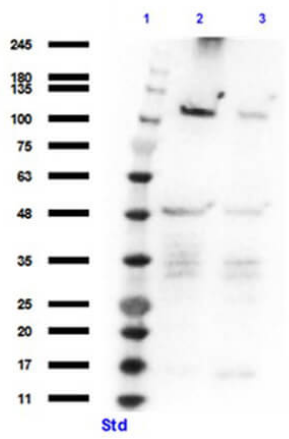
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry
Immunohistochemistry of Rabbit Anti-Smoothened Antibody. Tissue: Human Lung Tissue. Fixative: None. Antigen Retrieval: HIER using Citrate buffer for 20 mins. Staining: (A) H&E (200x), (B) Anti-SMO at 1:200 (200x), (C) Anti-SMO at 1:200 (400x). Secondary Antibody: Anti-Rabbit Poly IgG HRP for 8mins at RT. Counterstain: Hematoxylin. Results: SMO shows positive nuclear staining in alveolar cells and bronchial epithelium cells.



Western Blot
Western Blot of Rabbit Anti-Smoothened Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: Smoothened Overexpressed HEK293T Lysate DDK-Tagged [+]. Lane 3: HEK293T Lysate (p/n W09-001-GX5). Load: 10µg/lane. Primary Antibody: Anti-SMO at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat anti-Rabbit IgG HRP (p/n 611-103-122) 1:70,000 for 1hr at RT. Blocking Buffer: Universal BlockOut (p/n MB-073). Predicted MW: ~100kDa overexpressed lysate. Observed MW: ~48, 110kDa. Exposure: 9sec.

Disclaimer

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