

Datasheet for 600-401-A41**SMAD4 Antibody****Overview**

Description:	Anti-SMAD4 (RABBIT) Antibody - 600-401-A41
Item No.:	600-401-A41
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human, Mouse, Xenopus
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. SMAD4 (also known as Mothers against decapentaplegic homolog 4, Mothers against DPP homolog 4, deletion target in pancreatic carcinoma 4 and hSMAD4) is a common mediator of signal transduction by TGF- β (transforming growth factor), but is also involved in cancer development and metastases as a tumor suppressor. SMAD4 promotes binding of the SMAD2/SMAD4/FAST-1 complex to DNA and provides an activation function required for SMAD1 or SMAD2 to stimulate transcription. SMAD4 may form trimers with receptor-regulated SMAD (R-SMAD) and interacts with ATF2, COP55, DACH1, MSG1, SKI and TRIM33. In the absence of ligand SMAD4 is found in the cytoplasm, but when complexed with R-SMAD, translocates to the nucleus. Defects in SMAD4 are a cause of pancreatic carcinoma and juvenile polyposis syndrome (JPS), a syndrome in which patients are at risk for developing gastrointestinal cancers.
Synonyms:	rabbit anti-SMAD4 antibody, SMAD-4, SMAD 4, mothers against decapentaplegic homolog 4 antibody, MAD homolog 4, Mothers against DPP homolog 4, Deletion target in pancreatic carcinoma 4 antibody, SMAD family member 4, DPC 4, DPC4, MADH4, MADH 4
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	SMAD4
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Reactivity:	Human, Mouse, Xenopus
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the carboxy terminus of human SMAD4 protein.
Purity/Specificity:	This affinity purified antibody is directed against human SMAD4 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with SMAD4 protein from human, mouse and Xenopus based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Relevant Links:	• NCBI - 13603414 • UniProtKB - Q13485 • GeneID - 4089

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 60 kDa in size corresponding to SMAD4 protein by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:15,000 - 1:60,000
WB:	1:500 - 1:2,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.2 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



Western Blot

Western blot using Rockland's affinity purified anti-SMAD4 to detect over-expressed SMAD4 in transfected COS cells (lane 2). Lane 1 contains lysate from mock transfected COS cells. A doublet band is seen in the SMAD4 transfected lysate with the upper band (arrowhead) representing SMAD4 and the lower band being non-specific staining. The membrane was probed with the primary antibody at a 1:1,000 dilution. Personal Communication Kathleen Flanders, CCR-NCI, Bethesda, MD.

Disclaimer

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