

Anti-Smad4/DPC4

Polyclonal Antibody

Cat. # ABE21

Lot # 2007347

pack size: 100 µg

Store at 2-8°C

FOR RESEARCH USE ONLY
NOT FOR USE IN DIAGNOSTIC PROCEDURES
NOT FOR HUMAN OR ANIMAL CONSUMPTION



Certificate of Analysis

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Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB, IC	H, M, R, (Chp)	N/A	SAD Domain (275-320)	Rb	~68 kDa	NP_005350.1

Background

SMAD4 is a member of the Mothers Against Dpp (MAD)-related family of proteins. SMAD4 is functionally distinct among the SMAD family, and is required for the assembly and transcriptional activation of diverse, SMAD-DNA complexes. SMAD4 appears to be not regulated by phosphorylation, but acts as a common mediator of TGF-β, activin, and bone morphogenetic protein signaling responses. SMAD4 is frequently inactivated in pancreatic, biliary and colorectal tumors.

Presentation

Purified rabbit polyclonal in buffer containing 0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl with 0.05% sodium azide.

Concentration

1 mg/mL

Specificity

This antibody recognizes Smad4 at the SAD region.

Species Cross-reactivity

Demonstrated to react with Human, Mouse, and Rat. Predicted to react with Chimpanzee based on 100% sequence homology.

Immunogen

GST-tagged recombinant protein corresponding to human Smad4 at the SAD region.

Molecular Weight

~68 kDa observed.

Method of Purification

Affinity purified

Storage and Handling

Stable for 1 year at 2-8°C from date of receipt.

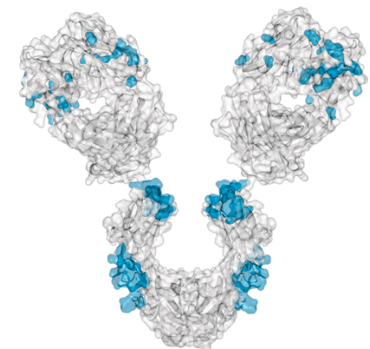
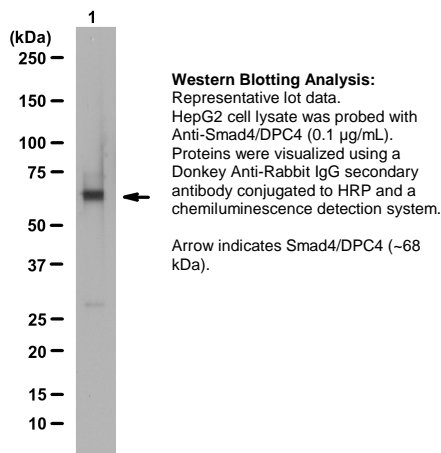
Control

HepG2 cell lysate

Quality Control Testing

Evaluated by Western Blotting in HepG2 cell lysate.

Western Blotting Analysis: 0.1 µg/mL of this antibody detected Smad4 on 10 µg of HepG2 cell lysate.



References

1. Eppert, K., *et al.* (1996). *Cell*. 86:543-552.
2. Derynck, R., *et al.* (1996). *Curr. Biol.* 6:1226-1229.
3. Hudson, J., *et al.* (1998). *Development*. 125: 1407-1420.
4. Lagna, G., *et al.* (1996). *Nature*. 383:832-836.
5. Hahn, S., *et al.* (1996). *Science*. 271:350-353.
6. Goggins, M., *et al.* (1998). *Cancer Res.* 58: 5329-5332.

Additional Research Applications

Immunocytochemistry Analysis: 1:500 dilution from a representative lot detected Smad4 in NIH/3T3, HeLa, and A431 cells.

APPLICATION LEGEND: WB Western Blotting IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence
IH Immunohistochemistry (Tissue) IH(P) Immunohistochemistry (Paraffin) FC Flow Cytometry

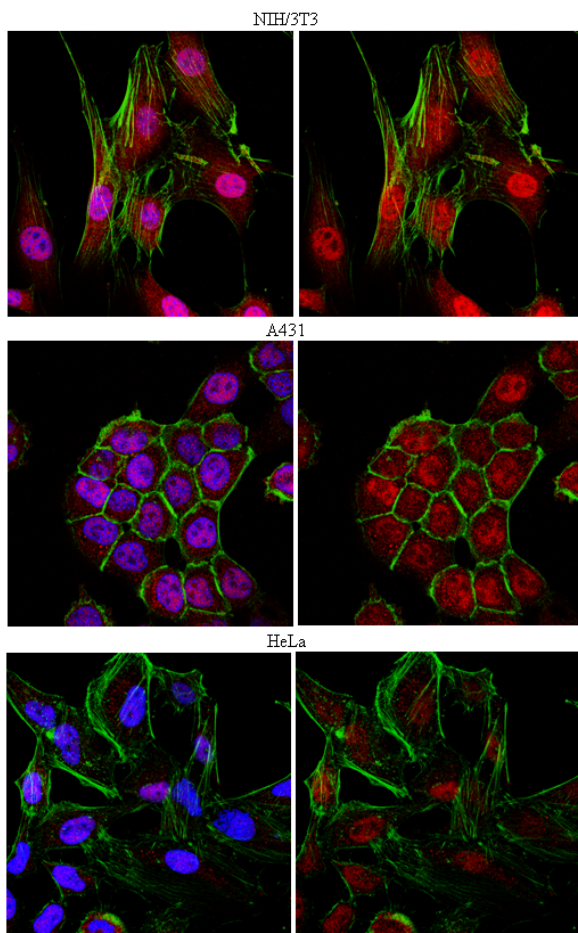
SPECIES LEGEND: Chp Chimpanzee H Human M Mouse R Rat Rb Rabbit WR Most Common Vertebrates

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Immunocytochemistry Analysis:
Representative lot data.

Confocal fluorescent analysis of NIH/3T3, A431, and HeLa cells using Anti-Smad4/DPC4 (Red). Actin filaments have been labeled with Alexa Fluor® 488 dye-Phalloidin (Green). Nucleus is stained with DAPI (Blue). This antibody positively stains the nucleus and cytoplasm with less intensity.

PROTOCOL

Western Blotting

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on cell lysate and transfer the proteins to a PVDF membrane. Wash the PVDF membrane twice with water.
2. Block the blotted PVDF membrane in freshly prepared 5% BSA or milk with 0.05% Tween®-20 surfactant for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of the primary antibody, diluted in freshly prepared 5% BSA or milk for 1 hour at room temperature or overnight with agitation at 2-8°C.
4. Wash the PVDF 3 times with TBST. Incubate the PVDF in the secondary reagent of choice in 5% milk for 1 hour with agitation at room temperature.
5. Wash the PVDF 3-5 times with TBST.
6. Visualize with enhanced chemiluminescence (ECL) method of choice.

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RELATED PRODUCTS (specific)

cat #	description
AP182P	Donkey anti-Rabbit IgG, HRP conjugate
04-1033	Anti-SMAD4 (C-term), clone EP618Y, Rabbit Monoclonal
MAB1132	Anti-Smad4, clone SMD46
MAB10129	Anti-SMAD4, clone 3E2

RELATED PRODUCTS (non-specific)

cat #	description
WBAVDBASE	SNAP i.d.® Protein Detection System
WBAVDABTR	SNAP i.d. Antibody Collection Tray
WBAVDR0LL	SNAP i.d. Blot Roller
WBAVDBH03	SNAP i.d. Triple Well Blot Holder
WBAVDBH01	SNAP i.d. Single Well Blot Holder
WBAVDBH02	SNAP i.d. Double Well Blot Holder
IPVH00010	Immobilon®-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm membrane
IPFL00010	Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm membrane
IPVH07850	Immobilon-P 7 x 8.4 cm PVDF 0.45 mm membrane (sheet) 50/pk
ISEQ00010	Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm membrane
ISEQ07850	Immobilon-P 7 x 8.4 cm PVDF 0.2 mm membrane (sheet) 50/pk
IPFL07810	Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm membrane (sheet) 10/pk
WBKLS0100	Immobilon Western Chemilum HRP Substrate 100 mL
2060	Re-Blot™ Western Blot Recycling Kit
2500	Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	Blot Quick Blocker™ Membrane Blocking Agent 175G
WBLUC0500	Luminata Classico Western HRP substrate, 500 mL
WBLUR0500	Luminata Crescendo Western HRP substrate, 500 mL

antibodies Multiplex products biotools cell culture enzymes kits proteins/peptides siRNA/cDNA products

Please visit www.millipore.com for additional product information, test data and references

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