

**DATASHEET**

**SMAD4 (Phospho-T276) Rabbit Polyclonal Antibody**

CAT. NO. APA10702

**KEY FEATURES**

Target	SMAD4 (Phospho-T276)	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine	Clonality	Polyclonal
Applications	WB, IHC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at-20°C

**BACKGROUND**

In muscle physiology, plays a central role in the balance between atrophy and hypertrophy. When recruited by MSTN, promotes atrophy response via phosphorylated SMAD2/4. MSTN decrease causes SMAD4 release and subsequent recruitment by the BMP pathway to promote hypertrophy via phosphorylated SMAD1/5/8. Acts synergistically with SMAD1 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression. Binds to SMAD binding elements (SBEs) (5'-GTCT/AGAC-3') within BMP response element (BMPRE) of cardiac activating regions. Common SMAD (co-SMAD) is the coactivator and mediator of signal transduction by TGF-beta (transforming growth factor).

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:100

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Rabbit polyclonal antibody to SMAD4 (Phospho-T276)
Specificity	Recognizes endogenous levels of SMAD4 protein only when phosphorylated at T276.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding T276 of human SMAD4 protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 60 kD; Observed: 70 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	DPC4; MADH4; Mothers against decapentaplegic homolog 4; MAD homolog 4; Mothers against DPP homolog 4; Deletion target in pancreatic carcinoma 4; SMAD family member 4; SMAD 4; Smad4; hSMAD4
Gene Symbol	SMAD4
Entrez Gene	4089(Human); 17128(Mouse); 50554(Rat)
SwissProt	Q13485(Human); P97471(Mouse); O70437(Rat)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

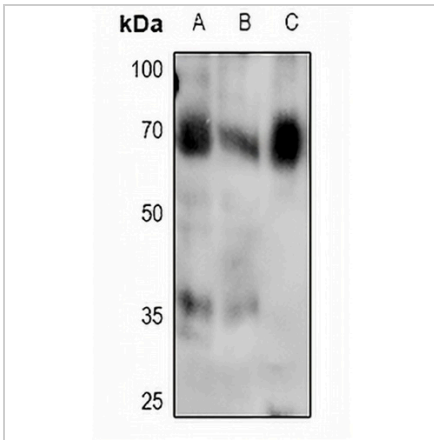
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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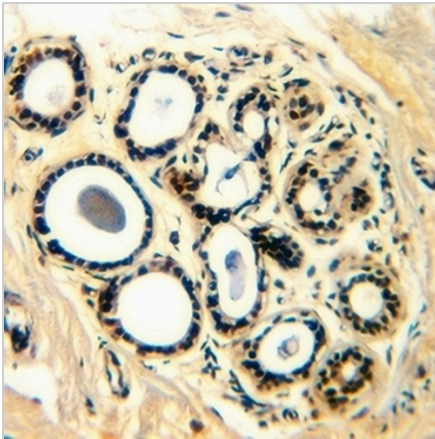
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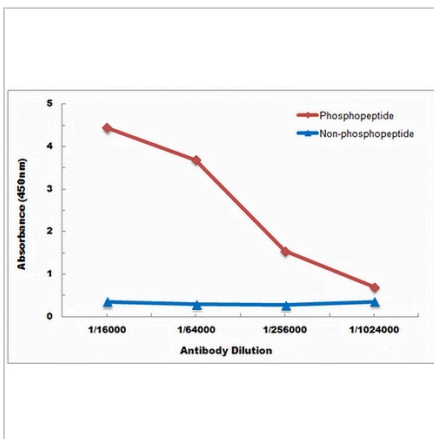
**DATA**



Western blot analysis of SMAD4 (Phospho-T276) expression in HeLa (A), HepG2 (B), mouse lung (C) whole cell lysates. (Predicted band size: 60 kD; Observed band size: 70 kD)



Immunohistochemical analysis of SMAD4 (Phospho-T276) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Direct ELISA antibody dose-response curve using Anti-SMAD4 (Phospho-T276) Antibody. Antigen (Phosphopeptide and non-phosphopeptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate.

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.