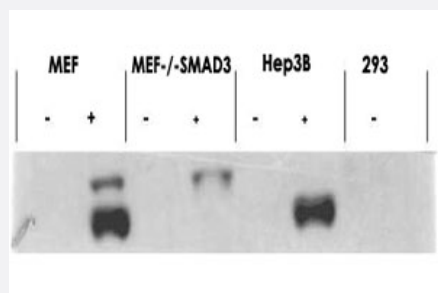


SMAD3 (phospho S423/425) polyclonal antibody

Catalog # PAB11304

Size 100 ug

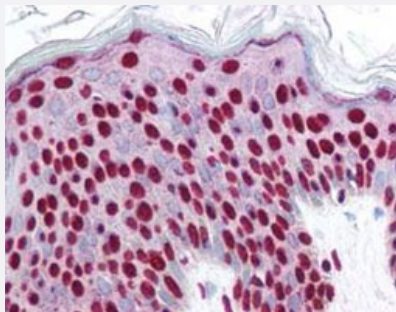
Applications



Western Blot (Cell lysate)

Western blot using SMAD3 (phospho S423/425) polyclonal antibody (Cat # PAB11304) shows detection of endogenous SMAD3 in stimulated cell lysates. Lysates were prepared from control cells (- lanes), or cells stimulated with 2 ng/mL TGF-beta (transforming growth factor) for 1 hour. This reagent recognizes phosphorylated Smad3 and has negligible reactivity against non-phosphorylated SMAD3 protein. Personal Communication. Ying Zhang, NIH, CCR, Bethesda, MD.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)



Immunohistochemical staining of SMAD3 (phospho S423/425) polyclonal antibody (Cat # PAB11304) was used at 2.5 ug/mL to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows strong nuclear staining in the majority of epidermal keratinocytes at 40X. Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of SMAD3.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding S423/S425 of human SMAD3.
Host	Rabbit
Reactivity	Bovine, Chicken, Clawed frog, Frog, Human, Mouse, Pig, Rat, Zebra fish

Specificity	Reactivity occurs against human Smad3 pS423 and pS425 protein and This antibody is specific to the phosphorylated form of the protein. Reactivity with non-phosphorylated human Smad3 is minimal by ELISA and western blot. Expect reactivity against phosphorylated Smad1 and Smad5. Negligible reactivity is seen against other phosphorylated Smad family members.
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	ELISA (1:75000-1:300000) Western Blot (1:2000-1:20000) Immunohistochemistry (1:500) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH ₂ PO ₄ , 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

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Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.

- Enzyme-linked Immunoabsorbent Assay

Gene Info — SMAD3

Entrez GeneID

[4088](#)

Protein Accession#	NP_005893;P84022
Gene Name	SMAD3
Gene Alias	DKFZp586N0721, DKFZp686J10186, HSPC193, HsT17436, JV15-2, MADH3, MGC60396
Gene Description	SMAD family member 3
Omim ID	603109
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions as a transcriptional modulator activated by transforming growth factor-beta and is thought to play a role in the regulation of carcinogenesis. [provided by RefSeq]
Other Designations	MAD, mothers against decapentaplegic homolog 3 SMA- and MAD-related protein 3 SMAD, mothers against DPP homolog 3 mad homolog JV15-2 mad protein homolog mothers against decapentaplegic homolog 3

Publication Reference

- [CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion.](#)

Zhang M, Jiang SK, Tian ZL, Wang M, Zhao R, Wang LL, Li SS, Liu M, Li JY, Zhang MZ, Guan DW.

International Journal of Clinical & Experimental Pathology 2015 Apr; 8(4):3491.

Application: WB-Ce, Rat, Skeletal muscle samples

- [TRAF6 mediates Smad-independent activation of JNK and p38 by TGF-beta.](#)

Yamashita M, Fatyol K, Jin C, Wang X, Liu Z, Zhang YE.

Molecular Cell 2008 Sep; 31(6):918.

- [Smad-dependent and Smad-independent pathways in TGF-beta family signalling.](#)

Derynck R, Zhang YE.

Nature 2003 Oct; 425(6958):577.

Application: WB-Tr, Human, Mammalian cells

- [Mechanisms of TGF-beta signaling from cell membrane to the nucleus.](#)

Shi Y, Massagué J.

Cell 2003 Jun; 113(6):685.

Pathway

- [Adherens junction](#)
- [Cell cycle](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [TGF-beta signaling pathway](#)
- [Wnt signaling pathway](#)

Disease

- [Alzheimer disease](#)
- [Anemia](#)
- [Asthma](#)
- [Bacteremia](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Coronary Artery Disease](#)
- [Crohn Disease](#)

- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Genetic Predisposition to Disease](#)
- [Graft vs Host Disease](#)
- [Head and Neck Neoplasms](#)
- [Hypersensitivity](#)
- [Hypertension](#)
- [Keloid](#)
- [Kidney Failure](#)
- [Liver Cirrhosis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Obesity](#)
- [Occupational Diseases](#)
- [Osteoarthritis](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Polycystic Ovary Syndrome](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Puberty](#)
- [Pulmonary Disease](#)

- [Thrombophilia](#)
- [Tobacco Use Disorder](#)