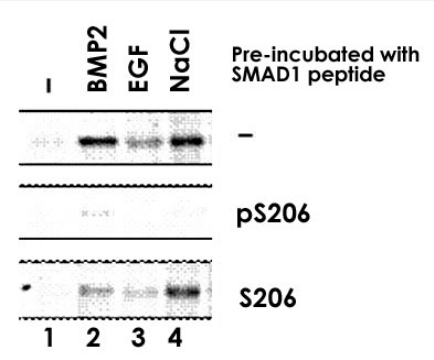
SMAD1 (phospho S206) polyclonal antibody

Catalog # PAB16903 Size 100 ug

Applications



Western Blot (Cell lysate)

Western blot using SMAD1 (phospho S206) polyclonal antibody (Cat # PAB16903) shows detection of endogenous phosphorylated SMAD1 in whole cell lysates from human hepatoma (HepG2, lanes 1-4) derived cell lines treated with PBS, BMP2 (5 ng/mL), EGF (1 ng/mL), or NaCl for 1 h at 37°C before harvest. Each lane contains approximately 15 ug of lysate. Primary antibody was used at a 1 : 500 dilution in 1% BLOTTO and reacted for 1 hour at room temperature. Primary antibody was pre-incubated before reacting with blot as follows : top row - with PBS, middle row - with the immunizing phosphorylated peptide and bottom row - with control or non-phosphorylated peptide. The membrane was washed and reacted with a 1 : 3,000 dilution HRP-conjugated a-Rabbit IgG for 1 hour at room temperature. Detection was by ECL. Personal communication, Xin-Hua Feng, Baylor College of Medicine, Houston, TX.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of SMAD1.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding to S206 of human SMAD1.
Host	Rabbit
Reactivity	Dog, Human, Mouse, Rat
Specificity	Reactivity occurs against human SMAD1 phosphoS206 protein and This antibody is specific to the p hosphorylated form of the protein. Reactivity with non-phosphorylated human SMAD1 is minimal by E LISA and western blot.
Form	Liquid

Recommend Usage	ELISA (1:5000-1:25000) Western Blot (1:500-1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH_2PO_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 shoul d be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

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  Personal communication, Xin-Hua Feng, Baylor College of Medicine, Houston, TX.

- Enzyme-linked Immunoabsorbent Assay

Gene Info — SMAD1

Entrez GeneID	4086
Gene Name	SMAD1
Gene Alias	BSP1, JV4-1, JV41, MADH1, MADR1
Gene Description	SMAD family member 1
Omim ID	601595
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 mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq
Other Designations	MAD, mothers against decapentaplegic homolog 1|Mad-related protein 1|SMAD, mothers against DPP homolog 1|Sma- and Mad-related protein 1|TGF-beta signaling protein 1|mothers against DPP homolog 1|transforming growth factor-beta signaling protein 1

Publication Reference

- Balancing BMP signaling through integrated inputs into the Smad1 linker.

  Sapkota G, Alarcon C, Spagnoli FM, Brivanlou AH, Massague J.

  Molecular Cell 2007 Feb; 25(3):441.

  Application: WB, Human, Fish, Fish embryos, HaCaT, HEK 293 cells

Pathway

- TGF-beta signaling pathway

Disease

- Cleft Lip
- Cleft Palate
- Diabetes Mellitus
- Diabetic Nephropathies
- Genetic Predisposition to Disease
- Head and Neck Neoplasms
- Hemochromatosis

- Hypertension
- Kidney Failure
- Neoplasm Recurrence
- Neoplasms
- Obesity
- Ovarian Failure
- Polycystic Ovary Syndrome
- Puberty
- Thrombophilia
- Tobacco Use Disorder