



Rabbit Anti-Phospho-Smad1/5 (Ser463 + Ser465) antibody

SL3418R

Product Name:	Phospho-Smad1/5 (Ser463 + Ser465)
Chinese Name:	磷酸化细胞Signal transduction分子Smad-1/5抗体
Alias:	Smad1 (phospho S463/465); Smad1 (phospho Ser463/465); p-Smad1 (Ser463/465); Mothers against decapentaplegic homolog 1; BSP 1; BSP1; BSP-1; Dwarfing A; DwfA; hSMAD 1; hSMAD1; JV 41; JV4 1; JV4-1; JV41; MAD mothers against decapentaplegic homolog 1; Mad related protein 1; MADH 1; MADH1; Madr 1; MADR1; Mothers against decapentaplegic homolog 1; Mothers against DPP homolog 1; Sma and Mad related protein 1; SMAD 1; SMAD-1; SMAD family member 1; SMAD mothers against DPP homolog 1 Drosophila; Spinal muscular atrophy distal with upper limb predominance; TGF beta signaling protein 1; Transforming growth factor beta signaling protein 1; SMAD1_HUMAN; MAD homolog 1; Mothers against DPP homolog 1; Mad-related protein 1; SMAD family member 1; Smad1; Transforming growth factor-beta-signaling protein 1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	52kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Smad1/5 around the phosphorylation site of Ser463/465:IS(p-S)V(p-S)
Lsotype:	IgG

Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>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].</p> <p>Function: Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD1 is a receptor-regulated SMAD (R-SMAD). SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1.</p> <p>Subunit: Interacts with HGS, NANOG and ZCCHC12. May form trimers with another SMAD1 and the co-SMAD SMAD4. Interacts with PEBP2-alpha subunit, CREB-binding protein (CBP), p300, SMURF1, SMURF2 and HOXC8. Associates with ZNF423 or ZNF521 in response to BMP2 leading to activate transcription of BMP target genes. Interacts with SKOR1. Interacts (via MH2 domain) with LEMD3. Binding to LEMD3 results in at least a partial reduction of receptor-mediated phosphorylation. Forms a ternary complex with PSMB4 and OAZ1 before PSMB4 is incorporated into the 20S proteasome.</p> <p>Subcellular Location: Cytoplasm. Nucleus. Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4. Co-localizes with LEMD3 at the nucleus inner membrane.</p> <p>Tissue Specificity: Ubiquitous. Highest expression seen in the heart and skeletal muscle.</p> <p>Post-translational modifications: Phosphorylated on serine by BMP type 1 receptor kinase.</p>

Ubiquitin-mediated proteolysis by SMAD-specific E3 ubiquitin ligase SMURF1.

DISEASE:

Defects in SMAD1 may be a cause of primary pulmonary hypertension (PPH1) [MIM:178600]. A rare disorder characterized by plexiform lesions of proliferating endothelial cells in pulmonary arterioles. The lesions lead to elevated pulmonary arterial pressure, right ventricular failure, and death. The disease can occur from infancy throughout life and it has a mean age at onset of 36 years. Penetrance is reduced. Although familial PPH1 is rare, cases secondary to known etiologies are more common and include those associated with the appetite-suppressant drugs.

Similarity:

Belongs to the dwarfin/SMAD family.
Contains 1 MH1 (MAD homology 1) domain.
Contains 1 MH2 (MAD homology 2) domain.

SWISS:

Q15797

Gene ID:

4086

Database links:

[Entrez Gene: 540488](#)Cow

[Entrez Gene: 475456](#)Dog

[Entrez Gene: 4086](#)Human

[Entrez Gene: 17125](#)Mouse

[Entrez Gene: 397016](#)Pig

[Entrez Gene: 25671](#)Rat

[Omin: 601595](#)Human

[SwissProt: Q1JQA2](#)Cow

[SwissProt: Q15797](#)Human

[SwissProt: P70340](#)Mouse

[SwissProt: P97588](#)Rat

[Unigene: 604588](#)Human

[Unigene: 223717](#)Mouse

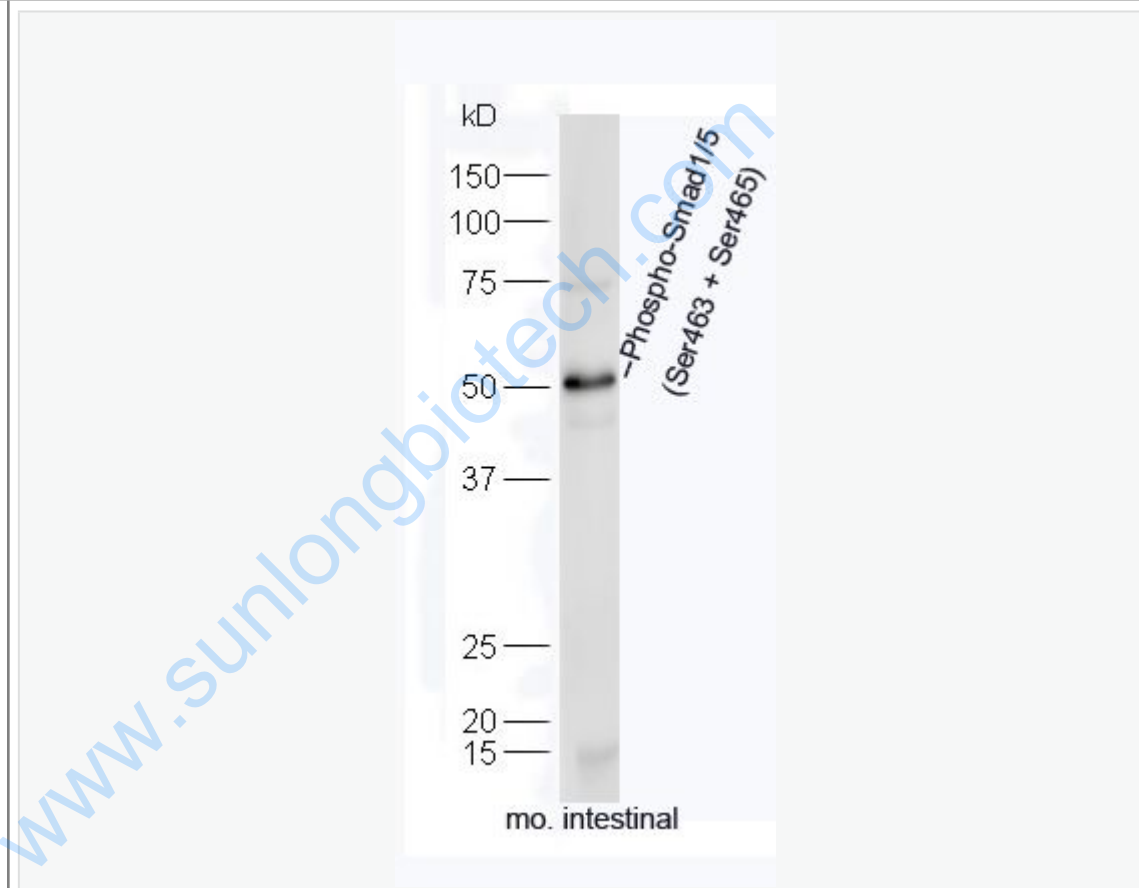
[Unigene: 10635](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Smads最新发现的TGF- β Signal transduction途径中一个重要的新基因家族.是TGF- β 特异的细胞内Signal transduction分子, SMAD1属于受体激活的SMADs.有学者认为:Smad1在某些Tumour中发生突变,有可能是一种Tumour抑制基因。

Picture:



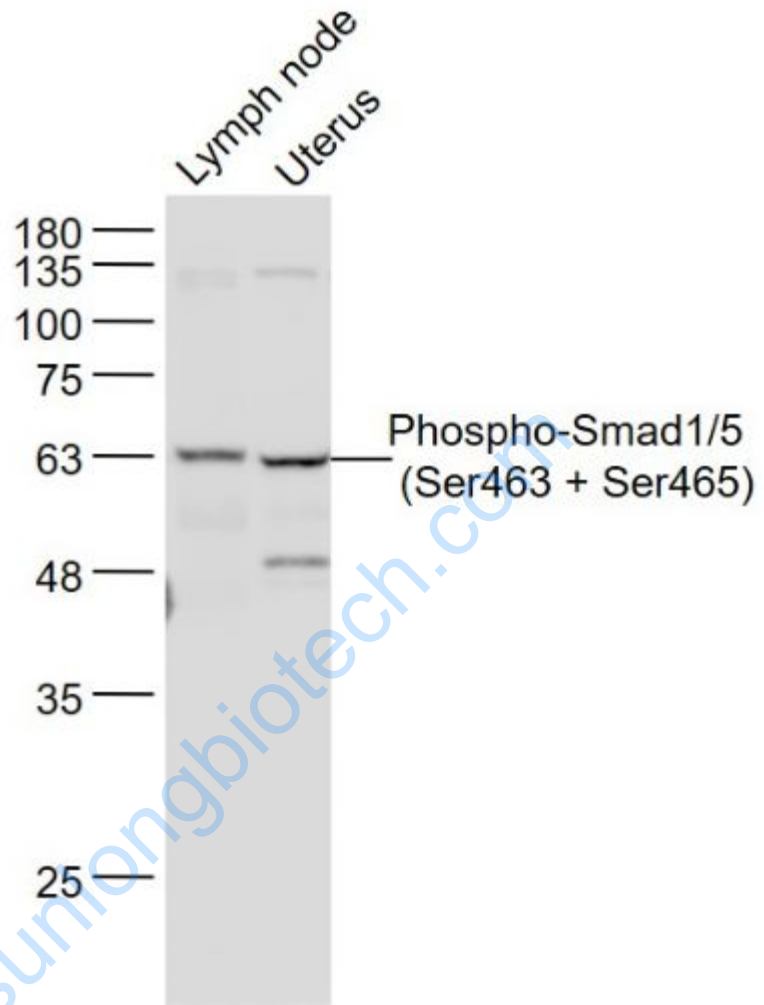
Sample: Intestinal(Mouse) lysate at 30ug;

Primary: Anti-Phospho-Smad1/5 (Ser463 + Ser465) (SL3418R) at 1:300 dilution;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(SL3418R) at 1: 5000 dilution;

Predicted band size: 52 kD

Observed band size: 52 kD



Cerebrum (Mouse) Lysate at 40 ug

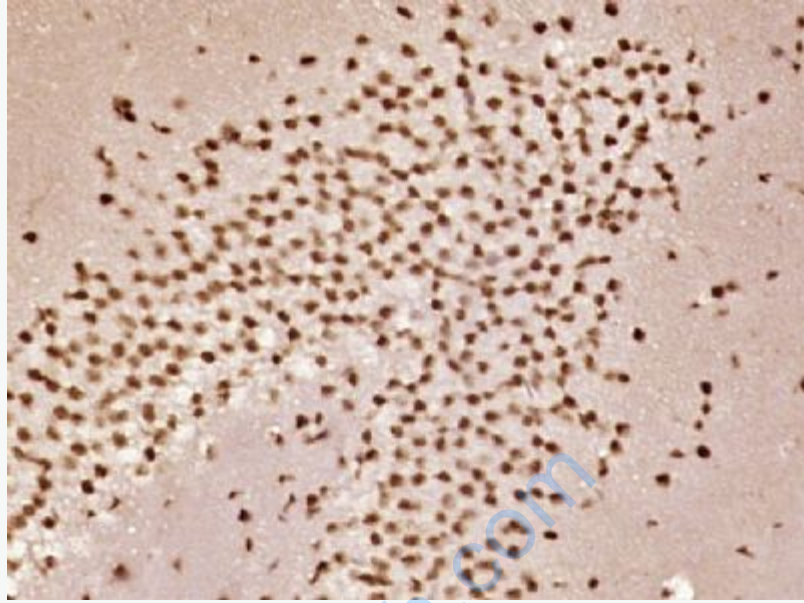
Stomach (Mouse) Lysate at 40 ug

Primary: Anti-Phospho-Smad1/5 (Ser463 + Ser465) (SL3418R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 52 kD

Observed band size: 62 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-Smad1 5 (Ser463 + Ser465)) Polyclonal Antibody, Unconjugated (SL3418R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.