

Smad1 (Phospho-Ser465) Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52355

Specification

Smad1 (Phospho-Ser465) Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB, IHC |
| Primary Accession | Q15797 |
| Reactivity | Human, Mouse, Rat |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 52260 |

Smad1 (Phospho-Ser465) Antibody - Additional Information

Gene ID 4086

Other Names

Mothers against decapentaplegic homolog 1, MAD homolog 1, Mothers against DPP homolog 1, JV4-1, Mad-related protein 1, SMAD family member 1, SMAD 1, Smad1, hSMAD1, Transforming growth factor-beta-signaling protein 1, BSP-1, SMAD1, BSP1, MADH1, MADR1

Dilution

WB~~1:1000
IHC~~1:50~100

Format

Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions

-20°C

Smad1 (Phospho-Ser465) Antibody - Protein Information

Name SMAD1

Synonyms BSP1, MADH1, MADR1

Function

Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis (PubMed:9335504). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRI) and associates with SMAD4 to form a heteromeric complex which translocates into the nucleus acting as transcription factor (PubMed:33667543). In turn, the hetero-trimeric complex recognizes cis-regulatory elements containing Smad Binding Elements

(SBEs) to modulate the outcome of the signaling network (PubMed:33667543). SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1. Positively regulates BMP4-induced expression of odontogenic development regulator MSX1 following IPO7-mediated nuclear import (By similarity).

Cellular Location

Cytoplasm. Nucleus Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4 (PubMed:15647271). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15647271). Exported from the nucleus to the cytoplasm when dephosphorylated (By similarity) {ECO:0000250|UniProtKB:P70340, ECO:0000269|PubMed:15647271}

Tissue Location

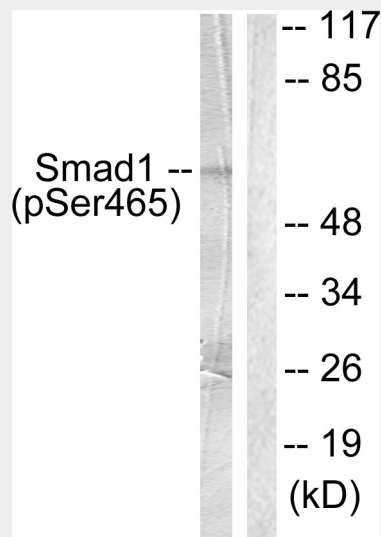
Ubiquitous. Highest expression seen in the heart and skeletal muscle

Smad1 (Phospho-Ser465) Antibody - Protocols

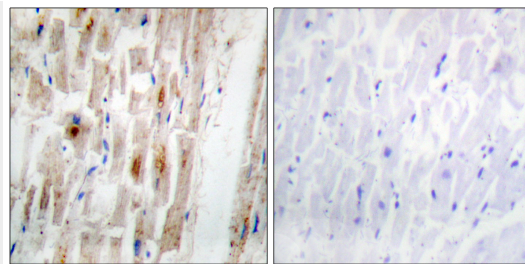
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Smad1 (Phospho-Ser465) Antibody - Images



Western blot analysis of extracts from HeLa cells treated with Serum (10%, 15min), using Smad1 (phospho-Ser465) antibody.



Immunohistochemical analysis of paraffin-embedded human heart tissue, using Smad1 (phospho-Ser465) antibody.

Smad1 (Phospho-Ser465) Antibody - Background

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. May act synergistically with SMAD4 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression.

Smad1 (Phospho-Ser465) Antibody - References

- Riggins G.J., et al. Nat. Genet. 13:347-349(1996).
- Liu F., et al. Nature 381:620-623(1996).
- Hoodless P.A., et al. Cell 85:489-500(1996).
- Lechleider R.J., et al. J. Biol. Chem. 271:17617-17620(1996).
- Zhang Y., et al. Nature 383:168-172(1996).