10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

(Mouse) Smad1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21203c

Specification

(Mouse) Smad1 Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P70340
Reactivity	**Mouse**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**52157**

(Mouse) Smad1 Antibody (Center) - Additional Information

Gene ID 17125

Other Names
Mothers against decapentaplegic homolog 1, MAD homolog 1, Mothers against DPP homolog 1, Dwarfin-A, Dwf-A, Mothers-against-DPP-related 1, Mad-related protein 1, mMad1, SMAD family member 1, SMAD 1, Smad1, Smad1, Madh1, Madr1

Target/Specificity
This Mouse Smad1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 154-187 amino acids from the Central region of Mouse Smad1.

Dilution
WB~~1:1000
IHC-P~~1:25
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
(Mouse) Smad1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

(Mouse) Smad1 Antibody (Center) - Protein Information

Name Smad1

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Synonyms Madh1, Madr1

Function Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis (PubMed:11566864, PubMed:15329343, PubMed:21420501, PubMed:35594155). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRIs) and associates with SMAD4 to form a heteromeric complex which translocates into the nucleus acting as transcription factor. In turn, the hetero-trimeric complex recognizes cis-regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network. SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1 (By similarity). Positively regulates BMP4-induced expression of odontogenic development regulator MSX1 following IPO7- mediated nuclear import (PubMed:34995814).

Cellular 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 (By similarity). Exported from the nucleus to the cytoplasm when dephosphorylated PubMed:25755279. {ECO:0000250|UniProtKB:Q15797, ECO:0000269|PubMed:25755279}

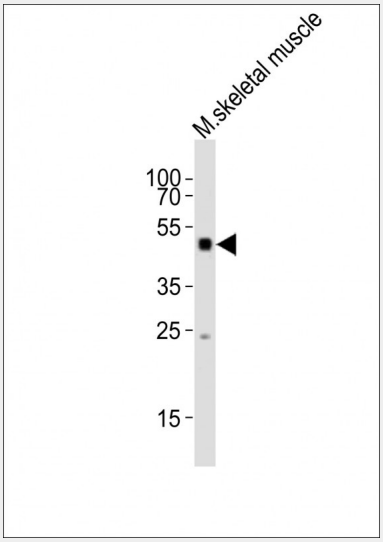
Tissue Location
Ubiquitous.

(Mouse) Smad1 Antibody (Center) - Protocols

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

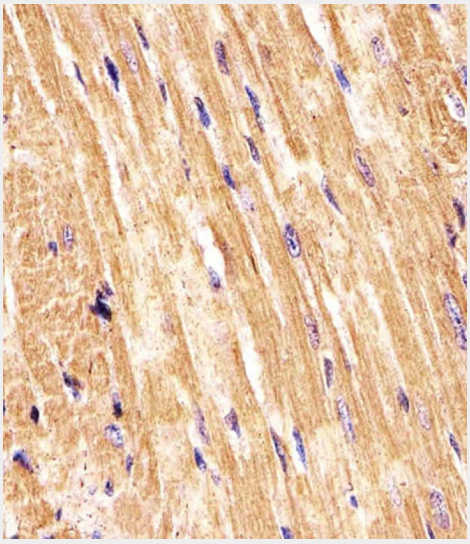
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

(Mouse) Smad1 Antibody (Center) - Images



10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Smad1 Antibody (Center) at 1:1000 dilution + mouse skeletal muscle lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 52 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP21203c staining (Mouse) Smad1 in Mouse heart tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

(Mouse) Smad1 Antibody (Center) - Background

Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD1 is a receptor-regulated SMAD (R-SMAD) (By similarity). May play a role in the initiation and maintenance of spermatogenesis. SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1 (By similarity). May act synergistically with SMAD4 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene [removed]PubMed:15329343).

(Mouse) Smad1 Antibody (Center) - References

Yingling J.M.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:8940-8944(1996).
Zhao G.-Q.,et al.Mech. Dev. 61:63-73(1997).
Huang S.,et al.Gene 258:43-53(2000).
Carninci P.,et al.Science 309:1559-1563(2005).
Miura S.,et al.Mol. Cell. Biol. 20:9346-9355(2000).