

Anti-Smad1 Antibody

Catalog # ABO11421

Product Information

Application	WB, IHC-P, ICC
Primary Accession	P70340
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Mothers against decapentaplegic homolog 1(SMAD1) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	17125
Other Names	Mothers against decapentaplegic homolog 1, MAD homolog 1, Mothers against DPP homolog 1, Dwarf-A, Dwf-A, Mothers-against-DPP-related 1, Mad-related protein 1, mMad1, SMAD family member 1, SMAD 1, Smad1, Smad1, Madh1, Madr1
Calculated MW	52157
Application Details	Immunocytochemistry , 0.5-1 µg/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm . Nucleus . In the cytoplasm in the absence of ligand. Migration to the nucleus when complexed with SMAD4. Colocalizes with LEMD3 at the nucleus inner membrane (By similarity). .
Tissue Specificity	Ubiquitous.
Source	Eukaryota
Protein Name	Mothers against decapentaplegic homolog 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Smad1(253-267aa AEISRGDVQAVAYEE), different from the related rat sequence by one amino acid, and different from the related human sequence

by two amino acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the dwarfin/SMAD family.

Protein Information

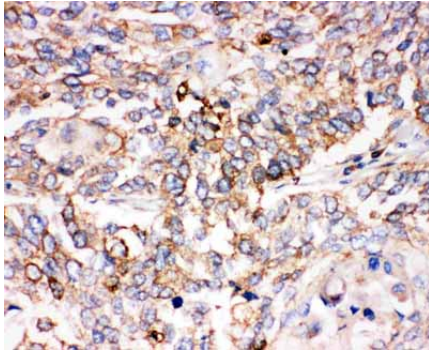
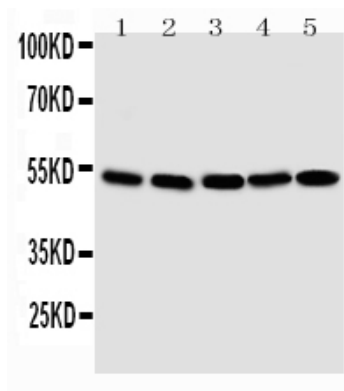
Name	Smad1 {ECO:0000312 MGI:MGI:109452}
Synonyms	Madh1, Madr1
Function	Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis (PubMed: 11566864 , PubMed: 15329343 , PubMed: 21420501 , PubMed: 35594155). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRI) 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.

Background

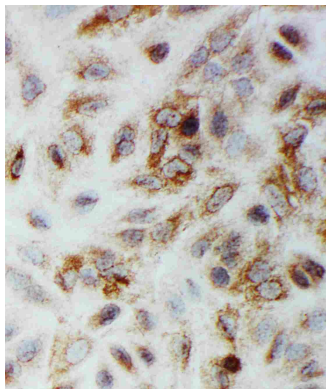
Mothers against decapentaplegic homolog 1 also known as SMAD family member 1 or SMAD1 is a protein that in humans is encoded by the SMAD1 gene. SMAD1 belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene mothers against decapentaplegic"(Mad) and the C. elegans gene Sma. The gene was assigned to human chromosome 4q31.21. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways."

Images

Anti-Smad1 antibody, ABO11421, Western blotting
Lane 1: SMMC Cell Lysate
Lane 2: K562 Cell Lysate
Lane 3: HT1080 Cell Lysate
Lane 4: HELA Cell Lysate
Lane 5: JURKAT Cell Lysate



Anti-Smad1 antibody, ABO11421, IHC(P)IHC(P): Human Lung Cancer Tissue



Anti-Smad1 antibody, ABO11421, ICCICC: A549 Cell

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.