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Anti-SMAD3 Antibody (aa170-219)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18015

Specification

Anti-SMAD3 Antibody (aa170-219) - Product Information

Application	**WB, IHC-P, E**
Primary Accession	P84022
Predicted	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**48081**

Anti-SMAD3 Antibody (aa170-219) - Additional Information

Gene ID 4088

Alias Symbol	**SMAD3**

Other Names
SMAD3, HSPC193, HMAD-3, HsT17436, LDS1C, LDS3, Mad homolog JV15-2, MAD3, MADH3, Mothers against DPP homolog 3, JV15-2, SMA- and MAD-related protein 3, SMAD family member 3, MAD homolog 3, HSMAD3, Mad protein homolog, SMAD 3

Target/Specificity
Smad3 (Ab-204) Antibody detects endogenous levels of total Smad3 protein.

Reconstitution & Storage
Immunoaffinity purified

Precautions
Anti-SMAD3 Antibody (aa170-219) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-SMAD3 Antibody (aa170-219) - Protein Information

Name SMAD3

Synonyms MADH3

Function
Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. Binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD3/SMAD4 complex, activates transcription. Also can form a SMAD3/SMAD4/JUN/FOS complex at the AP- 1/SMAD site to regulate TGF-beta-mediated transcription. Has an inhibitory effect on wound healing probably by modulating both growth and migration of primary keratinocytes and by altering the TGF-mediated chemotaxis of monocytes.

This effect on wound healing appears to be hormone-sensitive. Regulator of chondrogenesis and osteogenesis and inhibits early healing of bone fractures. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.

Cellular Location
Cytoplasm. Nucleus. Note=Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 (PubMed:15799969, PubMed:21145499). Through the action of the phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15601644). MAPK-mediated phosphorylation appears to have no effect on nuclear import (PubMed:19218245). PDPK1 prevents its nuclear translocation in response to TGF-beta (PubMed:17327236). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm of the inner cell mass at the blastocyst stage (By similarity) {ECO:0000250|UniProtKB:Q8BUN5, ECO:0000269|PubMed:15601644, ECO:0000269|PubMed:15799969, ECO:0000269|PubMed:16751101, ECO:0000269|PubMed:17327236, ECO:0000269|PubMed:19218245, ECO:0000269|PubMed:19289081, ECO:0000269|PubMed:21145499}

Anti-SMAD3 Antibody (aa170-219) - 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

Anti-SMAD3 Antibody (aa170-219) - Images