

Smad3 mouse Monoclonal Antibody(4C9) Catalog # AP63775

Specification

Smad3 mouse Monoclonal Antibody(4C9) - Product Information

Application	WB
Primary Accession	P84022
Reactivity	Human, Rat, Mouse
Host	Mouse
Clonality	Monoclonal

Smad3 mouse Monoclonal Antibody(4C9) - Additional Information

Gene ID 4088

Other Names
SMAD3

Dilution
WB~~WB 1:1000-2000, IHC 1:100-200

Format
Liquid in PBS containing 50% glycerol, 0.5%
BSA and 0.02% sodium azide.

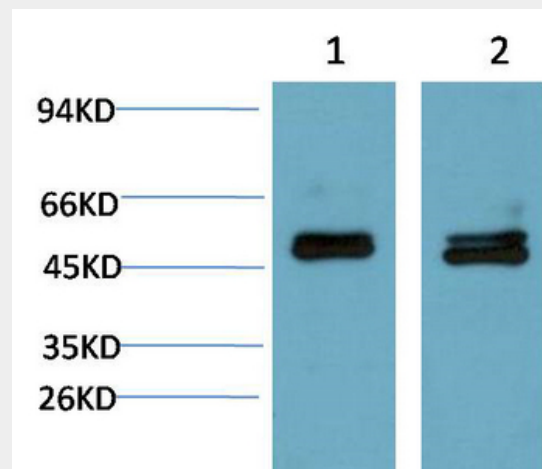
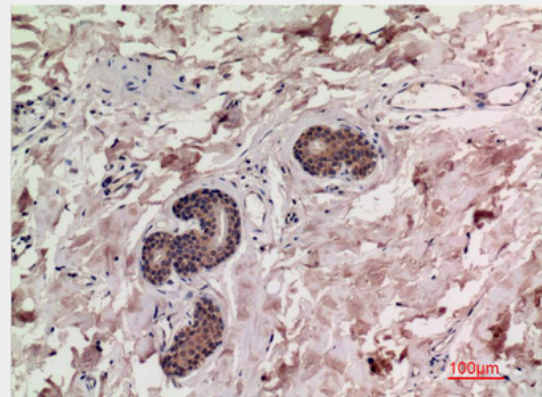
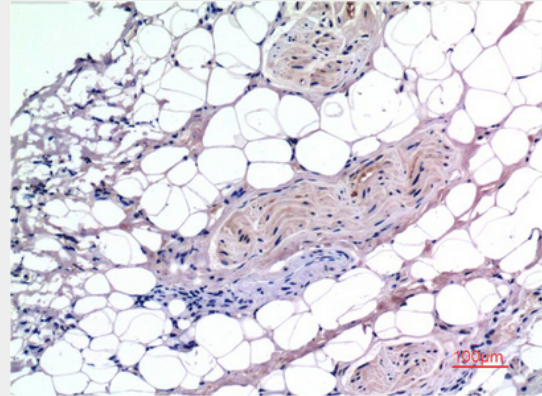
Storage Conditions
-20°C

Smad3 mouse Monoclonal Antibody(4C9) - 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}

Smad3 mouse Monoclonal Antibody(4C9) - Background

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.

Smad3 mouse Monoclonal Antibody(4C9) - 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](#)