

# Smad3 Rabbit mAb

Catalog # AP76095

## Product Information

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|--------------------------|----------------------------|
| <b>Application</b>       | WB, IP                     |
| <b>Primary Accession</b> | <a href="#">P84022</a>     |
| <b>Reactivity</b>        | Human, Mouse, Rat, Hamster |
| <b>Host</b>              | Rabbit                     |
| <b>Clonality</b>         | Monoclonal Antibody        |
| <b>Calculated MW</b>     | 48081                      |

## Additional Information

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| <b>Gene ID</b>     | 4088                                                                                     |
| <b>Other Names</b> | SMAD3                                                                                    |
| <b>Dilution</b>    | WB~~1/500-1/1000 IP~~1/20                                                                |
| <b>Format</b>      | 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.    |
| <b>Storage</b>     | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

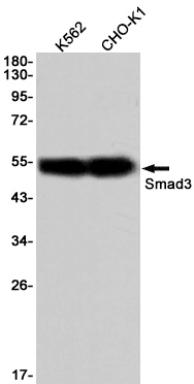
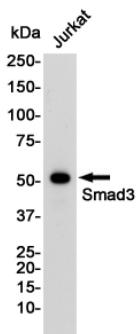
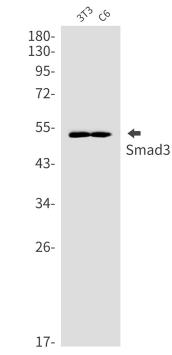
## Protein Information

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| <b>Name</b>              | SMAD3 ( <a href="#">HGNC:6769</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Synonyms</b>          | MADH3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Function</b>          | 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. |
| <b>Cellular Location</b> | 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}

## Images



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