

Smad2 Rabbit mAb

Catalog # AP76879

Product Information

| | |
|--------------------------|---------------------------|
| Application | WB, IHC-P, IHC-F, IP, ICC |
| Primary Accession | Q15796 |
| Reactivity | Human, Rat, Hamster |
| Host | Rabbit |
| Clonality | Monoclonal Antibody |
| Calculated MW | 52306 |

Additional Information

| | |
|--------------------|---|
| Gene ID | 4087 |
| Other Names | SMAD2 |
| Dilution | WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IP~~1/20 ICC~~N/A |
| Format | 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA. |

Protein Information

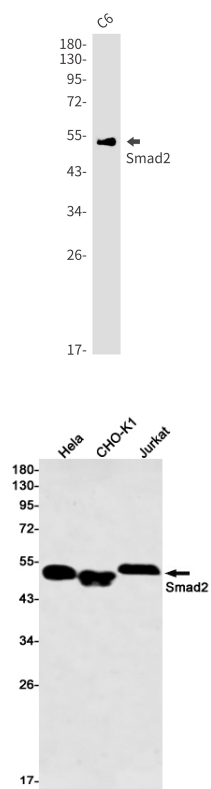
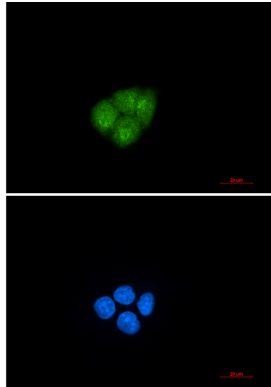
| | |
|--------------------------|--|
| Name | SMAD2 |
| Synonyms | MADH2, MADR2 |
| Function | Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. Binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD2/SMAD4 complex, activates transcription. Promotes TGF-beta-mediated transcription of odontoblastic differentiation genes in dental papilla cells (By similarity). Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator. May act as a tumor suppressor in colorectal carcinoma (PubMed: 8752209). |
| 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 or with IPO7 (PubMed:21145499, PubMed:9865696). On dephosphorylation by phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm at the blastocyst and epiblast stages (By similarity). |

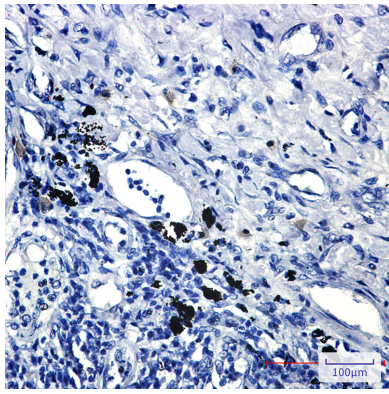
{ECO:0000250|UniProtKB:Q62432, ECO:0000269|PubMed:16751101, ECO:0000269|PubMed:19289081, ECO:0000269|PubMed:21145499, ECO:0000269|PubMed:9865696}

Tissue Location

Expressed at high levels in skeletal muscle, endothelial cells, heart and placenta.

Images





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