

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	Liquid

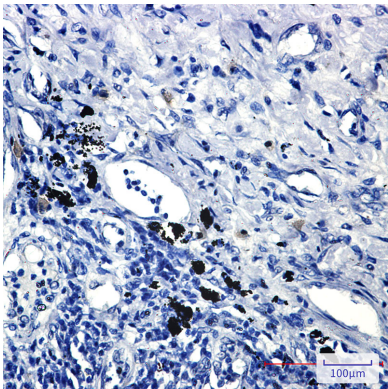
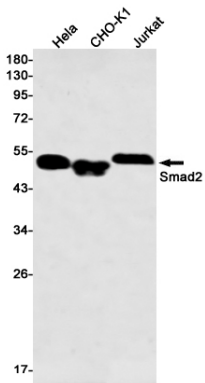
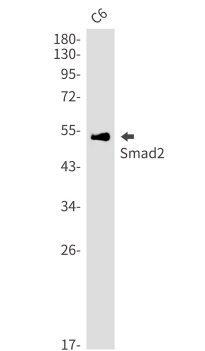
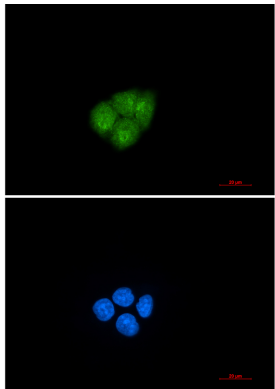
Protein Information

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 TGFB1-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,

Tissue Location

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

Images



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