

Phospho-Smad2 (Ser250) Rabbit mAb

Catalog # AP78894

Specification

Phospho-Smad2 (Ser250) Rabbit mAb - Product Information

Application
Primary Accession
Reactivity

Host Clonality

Calculated MW

WB <u>Q15796</u>

Human, Mouse

Rabbit

Monoclonal Antibody

52306

Phospho-Smad2 (Ser250) Rabbit mAb - Additional Information

Gene ID 4087

Other Names SMAD2

Dilution

WB~~1/500-1/1000

Format Liquid

Phospho-Smad2 (Ser250) Rabbit mAb - 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, 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.

Phospho-Smad2 (Ser250) Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Smad2 (Ser250) Rabbit mAb - Images

