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**Recombinant Human Mothers Against Decapentaplegic Homolog 2/SMAD2 Protein(N-6His-Flag)****Cat.NO.: TP04961**

3th Edition

**Synonyms:** Mothers against decapentaplegic homolog 2; MAD homolog 2; Mad-related protein 2; hMAD-2; SMAD family member 2; SMAD 2; Smad2; Hsmad2; SMAD2; MADH2; MADR2

**Description:** Mothers against decapentaplegic homolog 2 (SMAD2) is a cytoplasm protein which belongs to the dwarfin/SMAD family. Smad proteins undergo rapid nuclear translocation upon stimulation by transforming growth factor and in so doing transduce the signal into the nucleus. Receptor-regulated SMAD is an intracellular signal transducer and transcriptional modulator activated by TGF-beta and activin type 1 receptor kinases. SMAD2 contains 1 MH1 (MAD homology 1) domain and 1 MH2 (MAD homology 2) domain. It is expressed at high levels in skeletal muscle, endothelial cells, heart and placenta. It 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. It may act as a tumor suppressor in colorectal carcinoma. And SMAD2 positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.

**Form:** PBS

**Molecular Weight:** 54.6 kDa

**Sequences:** Ser2-Ser467

**Purity:** > 95% by HPLC

**Concentration:**

**Endotoxin Level:** <1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.