

Smad2 protein

Catalog No :	YD0091
Reactivity :	Human
Applications :	WB;SDS-PAGE
Gene Name :	SMAD2
Protein Name :	Smad2 protein
Sequence :	Amino acid: 282-467, with his-MBP tag.
Human Gene Id :	4087
Human Swiss Prot No :	Q15796
Mouse Swiss Prot No :	Q62432
Formulation :	Liquid in PBS
Concentration :	SDS-PAGE >90%
Storage Stability :	-20 °C/6 month,-80 °C for long storage
Function :	embryonic axis specification, in utero embryonic development, formation of primary germ layer, mesoderm formation,peptide secretion, generation of a signal involved in cell-cell signaling, regionalization, transcription, regulation of transcription, DNA-dependent, regulation of transcription from RNA polymerase II promoter, RNA processing, protein complex assembly, protein amino acid phosphorylation, phosphorus metabolic process, phosphate metabolic process,cell surface receptor linked signal transduction, enzyme linked receptor protein signaling pathway, transmembrane receptor protein serine/threonine kinase signaling pathway, transforming growth factor beta receptor signaling pathway, SMAD protein complex assembly, intracellular signaling cascade, cell-cell signaling, zygotic determination of dorsal/ventral axis, gastrulation, pattern specification process, mesoderm development, heart
Subcellular Location :	Cytoplasm . Nucleus . Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4

(PubMed:9865696, PubMed:21145499). 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).

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

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