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Datasheet

SMAD2 (Human) Recombinant Protein

Catalog Number: P3532

Regulation Status: For research use only (RUO)

Product Description: Human SMAD2 (NP_005892, 1 a.a. - 467 a.a.) full-length recombinant protein with His tag expressed in *Escherichia coli*.

Sequence:
MGSSHHHHHHSSGLVPRGSHMSSILPFTPPVVKRLLG WKKSAGGSGGAGGGEQNGQEEKWCEKAVKSLVKKL KKTGRLDELEKAITTQNCNTKCVTIPSTCSEIWGLSTPN TIDQWDTTGLYSFSEQTRSLDGRLQVSHRKGLPHVIY CRLWRWPDLHSHHELKAIENCEYAFNLKKDEVCVNPY HYQRVETPVLPPVLVPRHTEILTELPPLDDYTHSIPENT NFPAGIEPQSNYIPETPPPGYISEDGETSDQQLNQSMD TGSPAELSPTTLSPVNHSLDLQPVTYSEPAFWCSIAYY ELNQRVGETFHASQPSLTVDGFTDPSNSERFCLGLLS NVNRNATVEMTRRHIGRGVRLYYIGGEVFAECLSDSAI FVQSPNCNQRYGWHPATVCKIPPGCNLKIFNNQEFAA LLAQSVNQGFEAVYQLTRMCTIRMSFVKGWGAEYRR QTVTSTPCWIELHLNGPLQWLDKVLTQMGSPSVRCSS MS

Host: Escherichia coli

Theoretical MW (kDa): 54.4

Applications: SDS-PAGE
(See our web site product page for detailed applications information)

Protocols: See our web site at http://www.abnova.com/support/protocols.asp or product page for detailed protocols

Form: Liquid

Preparation Method: *Escherichia coli* expression system

Purification: Conventional Chromatography

Concentration: 0.5 mg/mL

Purity: > 95% by SDS-PAGE

Storage Buffer: In 20 mM Tris-HCl buffer, 100 mM NaCl, pH 8.0 (20% glycerol).

Storage Instruction: Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C.
Aliquot to avoid repeated freezing and thawing.

Entrez GeneID: 4087

Gene Symbol: SMAD2

Gene Alias: JV18, JV18-1, MADH2, MADR2, MGC22139, MGC34440, hMAD-2, hSMAD2

Gene Summary: The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signal of the transforming growth factor (TGF)-beta, and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors. The phosphorylation induces the dissociation of this protein with SARA and the association with the family member SMAD4. The association with SMAD4 is important for the translocation of this protein into the nucleus, where it binds to target promoters and forms a transcription repressor complex with other cofactors. This protein can also be phosphorylated by activin type 1 receptor kinase, and mediates the signal from the activin. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq]