Recombinant Human SMAD2 Protein (His & Flag Tag)

Catalog No. PKSH032762

Note: Centrifuge before opening to ensure complete recovery of vial contents.

| Description | |
|-----------------------------|--|
| 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 |
| Species | Human |
| Expression Host | E.coli |
| Sequence | Ser2-Ser467 |
| Accession | Q15796 |
| Calculated Molecular Weight | 54.6 kDa |
| Observed molecular weight | 60 kDa |
| Tag | N-6His-Flag |
| Properties | |
| Purity | > 90 % as determined by reducing SDS-PAGE. |
| Storage | Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from a 0.2 μ m filtered solution of 20mM PB,500mM NaCl, pH7.5. |
| Reconstitution | Please refer to the printed manual for detailed information. |
| Data | |



Background

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 is contains 1 MH1 (MAD homology 1) domain and1 MH2 (MAD homology 2) domain. It is expressed at high levels in skeletal muscle, endothelial cells, heart

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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.

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