

Recombinant Human SMAD2 Protein (His & Flag Tag)

Catalog Number:PKSH032762



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

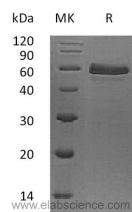
Description

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.
Endotoxin	< 1.0 EU per µg as determined by the LAL method.
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 µm 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 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.

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