

Recombinant Human Smad2 protein ab85329

1 Image

Description

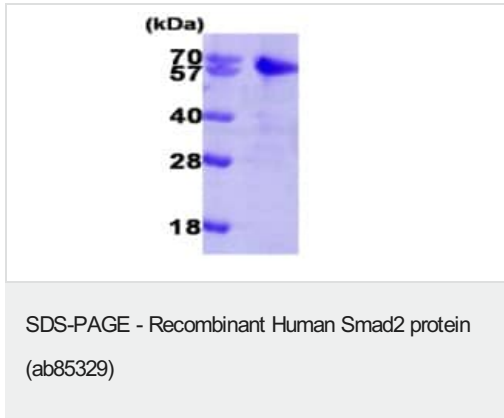
Product name	Recombinant Human Smad2 protein
Purity	> 95 % SDS-PAGE. ab85329 was purified using conventional chromatography techniques.
Endotoxin level	< 1.000 Eu/µg
Expression system	Escherichia coli
Accession	<u>Q15796</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHH SSGLVPRGSH MSSILPFTPP VVKRLLGWKK SAGGSGGAGG GEQNGQEEKW CEKAVKSLVK KKKKTGRLDE LEKAITTQNC NTKCVTIPSTCSEIWGLSTP NTIDQWDTTG LYSFSEQTRS LDGRLQVSHR KGLPHVIYCR LWRWPDLHSH HELKAIENCE YAFNLKKDEV CVNPYHYQRV ETPVLPPVLVPRHTEILTEL PPLDDYTHSI PENTNFPAGI EPQSNYPET PPPGYISEDG ETSDQQLNQS MDTGSPAELS PTTLSPVNHS LDLQPVTYSE PAFWCSIAYYELNQRVGETF HASQPSLTVD GFTDPSNSER FCLGLLSNVN RNATVEMTRR HIGRGVRLYY IGGEVFAECL SDSAIFVQSP NCNQRYGWHP ATVCKIPPGCNLKIFNNQEF AALLAQSVNQ GFEAVYQLTR MCTIRMSFVK GWGAEYRRQT VTSTPCWIEL HLNGLPLQWLD KVLTMGSPS VRCSSMS
Predicted molecular weight	54 kDa
Amino acids	1 to 467

Specifications

Our **Abpromise guarantee** covers the use of **ab85329** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid
Preparation and Storage	
Stability and Storage	<p>Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.</p> <p>pH: 8.00</p> <p>Constituents: 0.316% Tris HCl, 0.58% Sodium chloride</p>
General Info	
Function	<p>Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. 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. May act as a tumor suppressor in colorectal carcinoma.</p>
Tissue specificity	Expressed at high levels in skeletal muscle, heart and placenta.
Sequence similarities	<p>Belongs to the dwarfin/SMAD family.</p> <p>Contains 1 MH1 (MAD homology 1) domain.</p> <p>Contains 1 MH2 (MAD homology 2) domain.</p>
Post-translational modifications	<p>Phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases. Able to interact with SMURF2 when phosphorylated on Ser-465/467, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, phosphorylated on Ser-240 by CaMK2. Phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin. In response to TGF-beta, ubiquitinated by NEDD4L; which promotes its degradation.</p> <p>Acetylated on Lys-19 by coactivators in response to TGF-beta signaling, which increases transcriptional activity. Isoform short: Acetylation increases DNA binding activity in vitro and enhances its association with target promoters in vivo. Acetylation in the nucleus by EP300 is enhanced by TGF-beta.</p>
Cellular localization	<p>Cytoplasm. Nucleus. Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4. On dephosphorylation by phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1.</p>
Images	



15% SDS-PAGE analysis of 3µg ab85329

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