

Product datasheet for **TA381744**

SMAD2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	WB,1:500 - 1:2000 IHC,1:50 - 1:200 IF,1:50 - 1:200
Reactivity:	Human, Mouse, Rat
Modifications:	Phospho S465/467 + S423/425
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	A synthetic phosphorylated peptide around S465 & S467 of human Smad2 (NP_005892.1).
Formulation:	Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	48kDa/52kDa/25kDa/35kDa/43kDa
Gene Name:	SMAD family member 2
Database Link:	Entrez Gene 4087 Human Q15796



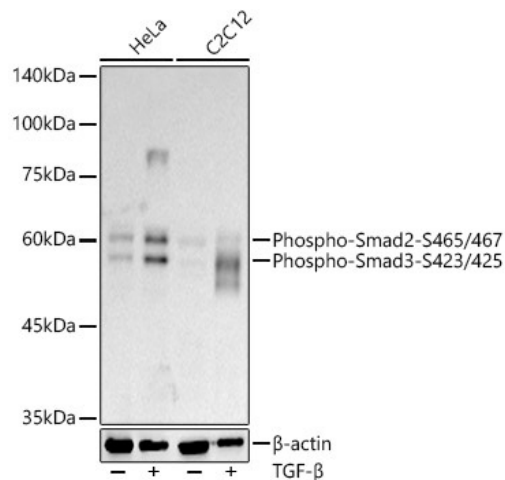
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Background:

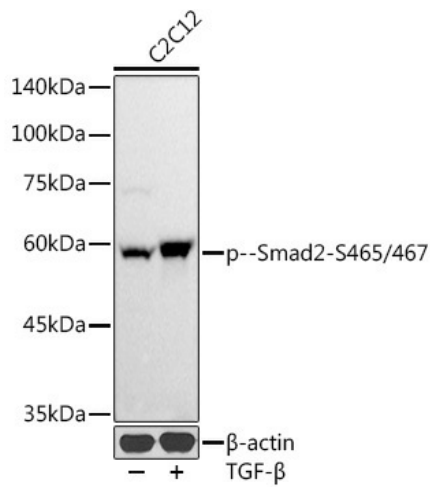
The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the *Drosophila* gene 'mothers against decapentaplegic' (Mad) and the *C. elegans* gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. 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 have been observed for this gene. [provided by RefSeq, May 2012]

Synonyms:

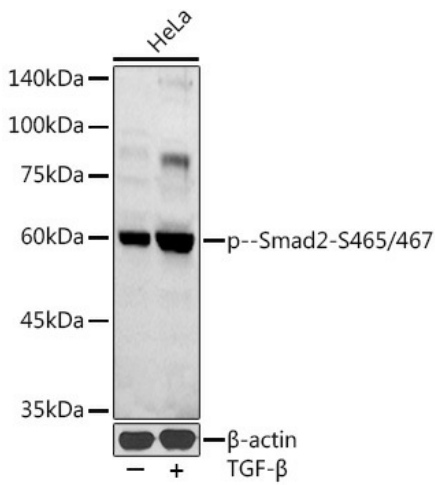
hMAD-2; hSMAD2; JV18; JV18-1; MADH2; MADR2; MGC22139; MGC34440

Product images:


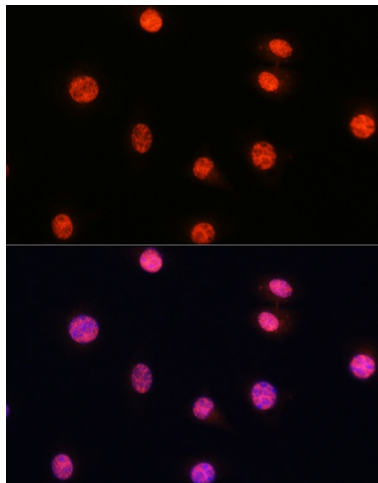
Western blot analysis of extracts of various cell lines, using Phospho-Smad2 (Ser465/467)/Smad3 (Ser423/425) antibody (TA381744) at 1:1000 dilution. HeLa and C2C12 cells were treated by TGF- β (10 ng/ml) at 37°C for 30 minutes after serum-starvation overnight. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 90s.



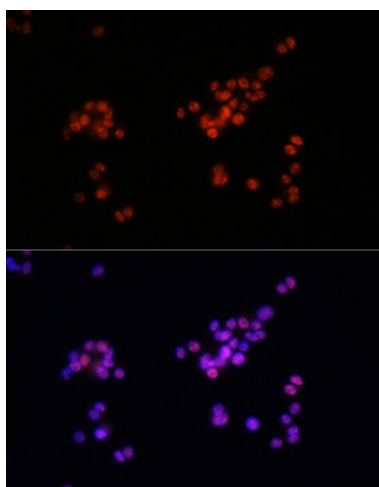
Western blot analysis of extracts of C2C12 cells, using IL2 antibody (A16898) at 1:1000 dilution. C2C12 cells were treated by TGF- β (10 ng/ml) at 37°C for 30 minutes after serum-starvation overnight. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit. | Exposure time: 30s.



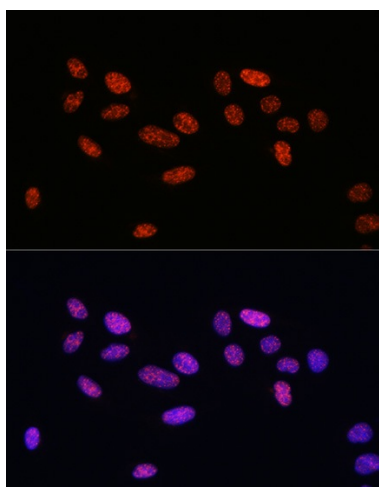
Western blot analysis of extracts of HeLa cells, using IL2 antibody (A16898) at 1:1000 dilution. HeLa cells were treated by TGF- β (10 ng/ml) at 37°C for 30 minutes after serum-starvation overnight. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit. | Exposure time: 180s.



Immunofluorescence analysis of L929 cells using Phospho-Smad2-S465/467 + Smad3-S423/425 antibody (TA381744) at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of PC-12 cells using Phospho-Smad2-S465/467 + Smad3-S423/425 antibody (TA381744) at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U2OS cells using Phospho-Smad2-S465/467 + Smad3-S423/425 antibody (TA381744) at dilution of 1:100. Blue: DAPI for nuclear staining.