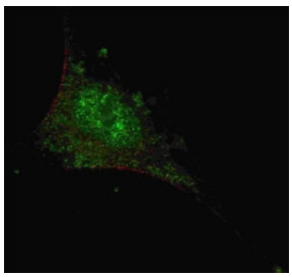
SMAD2 Antibody (F50346)

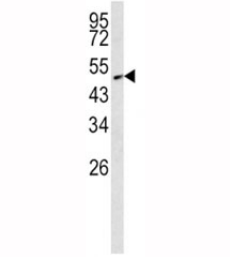
Catalog No.	Formulation	Size
F50346-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50346-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Bovine, Zebrafish
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q15796
Applications	Immunofluorescence : 1:200 Western Blot : 1:1000
Limitations	This SMAD2 antibody is available for research use only.



Fluorescent confocal image of SY5Y cells stained with SMAD2 antibody at 1:200. Note the highly specific localization of the SMAD2 to the nucleus.



Western blot analysis of SMAD2 antibody and NCI-H460 lysate. Predicted molecular weight: 52~60 kDa.

Description

The protein belongs to the SMAD, a family of proteins similar to the proteins 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.

Application Notes

Titration of the SMAD2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 201-230 from the human protein was used as the immunogen for this SMAD2 antibody.

Storage

Aliquot the SMAD2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.