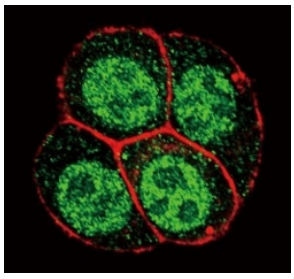
Phospho-SMAD2 Antibody (pS118) (F48605)

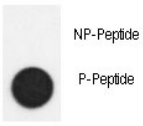
Catalog No.	Formulation	Size
F48605-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48605-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Bovine, Chicken, Drosophila, Mouse, Pig, Rat, Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q15796
Applications	Immunofluorescence : 1:10-1:50 Dot Blot : 1:500
Limitations	This phospho-SMAD2 antibody is available for research use only.



Confocal immunofluorescent analysis of phospho-SMAD2 antibody with HeLa cells followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 Phalloidin (red).



Dot blot analysis of phospho-SMAD2 antibody. 50ng of phos-peptide or nonphos-peptide per dot were spotted.

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 phospho-SMAD2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This phospho-SMAD2 antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS118 of human SMAD2.

Storage

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