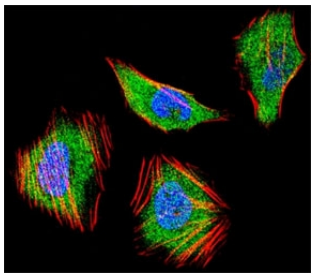
SMAD4 Antibody (F50739)

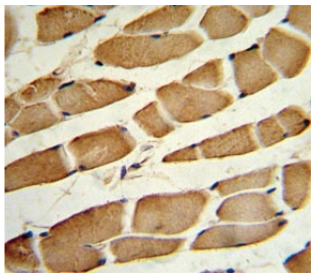
Catalog No.	Formulation	Size
F50739-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50739-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

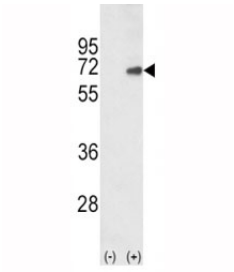
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Bovine, Pig
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	Q13485
Applications	Western blot: 1:1000 IHC (Paraffin): 1:10-1:50 Immunofluorescence: 1:10-1:50 Flow Cytometry: 1:10-1:50
Limitations	This SMAD4 antibody is available for research use only.



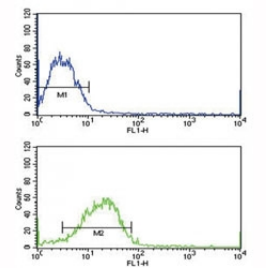
Fluorescent confocal image of HeLa cell stained with SMAD4 antibody at 1:25. SMAD4 immunoreactivity is localized to the cytoplasm and nucleus.



IHC analysis of FFPE human skeletal muscle stained with SMAD4 antibody



Western blot analysis of SMAD4 antibody and 293 cell lysate (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the human gene (2). Predicted molecular weight: 60-70 kDa.



SMAD4 antibody flow cytometric analysis of MCF-7 cells (bottom histogram) compared to a negative control (top histogram). FITC-conjugated goat-anti-rabbit secondary Ab was used for the analysis.

Description

In muscle physiology, SMAD4 plays a central role in the balance between atrophy and hypertrophy. When recruited by MSTN, promotes atrophy response via phosphorylated SMAD2/4. MSTN decrease causes SMAD4 release and subsequent recruitment by the BMP pathway to promote hypertrophy via phosphorylated SMAD1/5/8. Acts synergistically with SMAD1 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression. Binds to SMAD binding elements (SBEs) (5'-GTCT/AGAC-3') within BMP response element (BMPRE) of cardiac activating regions (By similarity). [UniProt]

Application Notes

Titration of the SMAD4 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 400-428 from the human protein was used as the immunogen for this SMAD4 antibody.

Storage

Aliquot the SMAD4 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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