

Datasheet for ABIN969401

anti-SMAD2 antibody

7 Images

2 Publications

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Overview

Quantity:	100 µL
Target:	SMAD2
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Flow Cytometry (FACS), Immunocytochemistry (ICC)

Product Details

Immunogen:	Purified recombinant fragment of human SMAD2 expressed in E. coli.
Clone:	5G7
Isotype:	IgG1
Purification:	purified

Target Details

Target:	SMAD2
Alternative Name:	SMAD2 (SMAD2 Products)
Background:	Description: 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

Target Details

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 encoding the same protein have been observed.

Aliases: JV18, MADH2, MADR2, JV18-1, hMAD-2, hSMAD2, MGC22139, MGC34440

Molecular Weight: 52 kDa

Gene ID: 4087

HGNC: 4087

Pathways: [Cell Division Cycle](#), [Hormone Transport](#), [Chromatin Binding](#), [Protein targeting to Nucleus](#)

Application Details

Application Notes: ELISA: 1:10000, WB: 1:500 - 1:2000, IHC: 1:200 - 1:1000, ICC: 1:200 - 1:1000, FCM: 1:200 - 1:400

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Ascitic fluid containing 0.03 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C/-20 °C

Storage Comment: 4°C, -20°C for long term storage

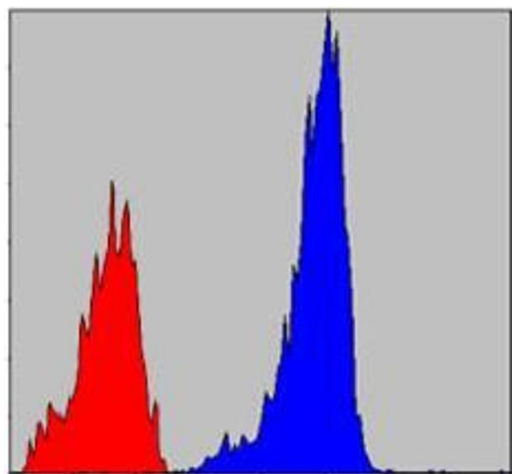
Publications

Product cited in: Jan, Adolfsson, Allaman, Buccarello, Magistretti, Pfeifer, Muhs, Lashuel: "Abeta42 neurotoxicity

is mediated by ongoing nucleated polymerization process rather than by discrete Abeta42 species." in: **The Journal of biological chemistry**, Vol. 286, Issue 10, pp. 8585-96, (2011) ([PubMed](#)).

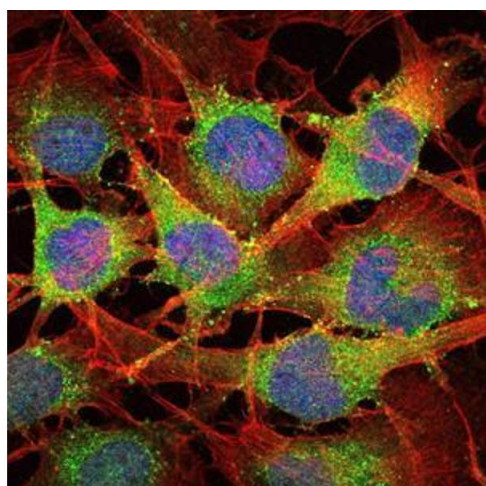
Deshmukh, Salehzadeh, Metayer-Coustard, Fahlman, Nair, Al-Khalili: "Post-transcriptional gene silencing of ribosomal protein S6 kinase 1 restores insulin action in leucine-treated skeletal muscle." in: **Cellular and molecular life sciences : CMLS**, Vol. 66, Issue 8, pp. 1457-66, (2009) ([PubMed](#)).

Images



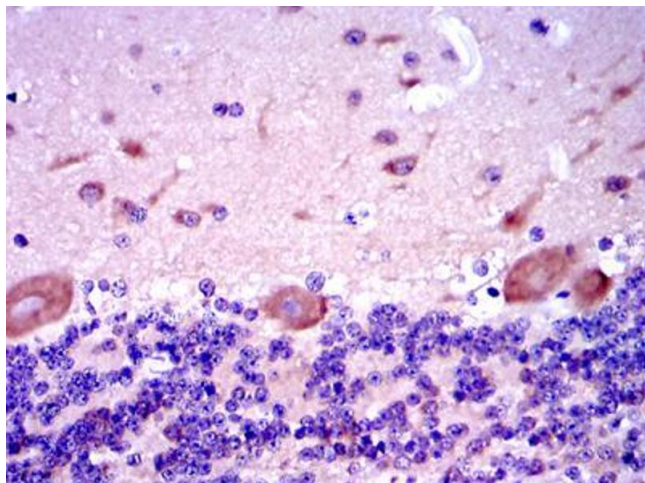
Flow Cytometry

Image 1. Flow cytometric analysis of NIH/3T3 cells using SMAD2 mouse mAb (blue) and negative control (red).



Immunofluorescence

Image 2. Immunofluorescence analysis of U251 cells using SMAD2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Immunohistochemistry

Image 3. Immunohistochemical analysis of paraffin-embedded human cerebellum tissues using SMAD2 mouse mAb with DAB staining.

Please check the [product details page](#) for more images. Overall 7 images are available for ABIN969401.