

Datasheet for ABIN391545
anti-SMAD2 antibody (AA 97-125)



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Overview

Quantity:	400 µL
Target:	SMAD2
Binding Specificity:	AA 97-125
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SMAD2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Flow Cytometry (FACS)

Product Details

Immunogen:	This SMAD2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 97-125 amino acids from human SMAD2.
Clone:	RB18941
Isotype:	Ig Fraction
Predicted Reactivity:	D, B, Zf, Rat, C, Pig
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	SMAD2
Alternative Name:	SMAD2 (SMAD2 Products)

Target Details

Background:	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.
Molecular Weight:	52306
Gene ID:	4087
NCBI Accession:	NP_001003652 , NP_005892
UniProt:	Q15796
Pathways:	Cell Division Cycle , Hormone Transport , Chromatin Binding , Protein targeting to Nucleus

Application Details

Application Notes:	IF: 1:100. WB: 1:1000. FC: 1:10~50
Restrictions:	For Research Use only

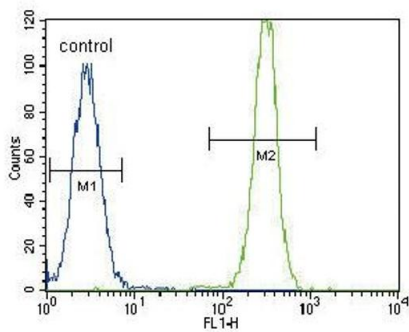
Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) 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:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small

aliquots to prevent freeze-thaw cycles.

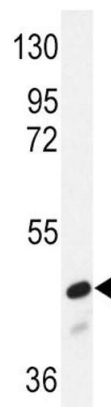
Expiry Date: 6 months

Images



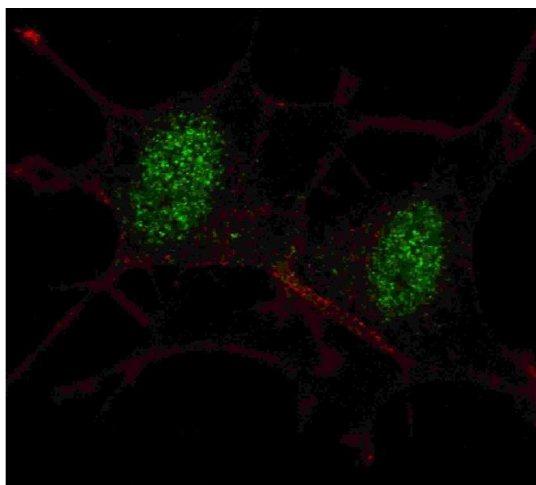
Flow Cytometry

Image 1. SD2 Antibody (ABIN391545 and ABIN2841494) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Western Blotting

Image 2. Western blot analysis of SD2 Antibody (ABIN391545 and ABIN2841494) in NIH-3T3 cell line lysates (35 µg/lane). SD2 (arrow) was detected using the purified Pab.



Immunofluorescence

Image 3. Fluorescent confocal image of SY5Y cells stained with SD2 antibody. SY5Y cells were fixed with 4 % PFA (20 min), permeabilized with Triton X-100 (0.2 %, 30 min). Cells were then incubated with (ABIN391545 and ABIN2841494) SD2 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/mL, 5 min). Note the highly specific localization of the SD2 inly to the nucleus.