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Datasheet for ABIN650816 anti-SMAD2 antibody (pThr220)

3 Images



Overview

Quantity:	400 µL
Target:	SMAD2
Binding Specificity:	pThr220
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SMAD2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Dot Blot (DB)

Product Details

Immunogen:	This SMAD2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding T220 of human SMAD2.
Clone:	RB18943
lsotype:	Ig Fraction
Predicted Reactivity:	B, Zf, M, Rat
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	SMAD2
Alternative Name:	SMAD2 (SMAD2 Products)

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Target Details

Background:	SMAD2 is a 58 kDa member of a family of proteins involved in cell proliferation, differentiation
	and development. The Smad family is divided into three subclasses: receptor-regulated Smad's,
	activin/TGF?receptor-regulated (Smad2 and 3) or BMP receptor regulated (Smad1, 5, and 8),
	the common partner, (Smad4) that functions via its interaction to the various Smad's, and the
	inhibitory Smad's, (Smad6 and Smad7). Smad2 consists of two highly conserved domains, the
	N terminal Mad homology (MH1) and the C-terminal Mad homology 2 (MH2) domains. The
	MH1 domain binds DNA and regulates nuclear import and transcription while the MH2 domain
	conserved among all the Smad's regulates Smad2 oligomerization and binding to cytoplasmic
	adaptors and transcription factors. Activated Smad2 associates with Smad4 and translocates
	as a complex into the nucleus, allowing its binding to DNA and transcription factors. This
	translocation of Smad2 (as well as Smad3) into the nucleus is a central event in TGF beta
	signaling. Phosphorylation of threonine 8 in the calmodulin binding region of the MH1 domain
	by extracellular signal regulated kinase 1(ERK 1) enhances Smad2 transcriptional activity,
	which is negatively regulated by calmodulin. The regulation of Smad2 phosphorylation on
	threonine 8 by ERK 1 and calmodulin is critical for Smad2 mediated signaling.

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: 1:10~50. WB: 1:500. DB: 1:500
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.

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Handling

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



Western Blotting

Image 1. Western blot analysis of lysates from Hela cell line, untreated or treated with TGF- β , 100 ng/mL, 30 min, using Phospho-SD2 Antibody (ABIN650816 and ABIN2839794) (upper) or Beta-actin (lower).

Immunofluorescence

Image 2. Confocal immunofluorescent analysis of Phospho-SD2- Antibody (ABIN650816 and ABIN2839794) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).

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Dot Blot

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