Datasheet for ABIN389656

anti-SMAD3 antibody (pSer208)

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Overview

Quantity:	400 µL
Target:	SMAD3
Binding Specificity:	pSer208
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SMAD3 antibody is un-conjugated
Application:	Immunofluorescence (IF), Dot Blot (DB)

Product Details

Immunogen:	This SMAD3 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S208 of human SMAD3.
Clone:	RB31592-RB31594
Isotype:	Ig Fraction
Predicted Reactivity:	C, M, Pig, Rat
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	SMAD3
Alternative Name:	SMAD3 (SMAD3 Products)

Target Details

Background:	SMAD3, a receptor regulated SMAD (R-SMAD) is a transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinase. SMAD3 is estimated to account for at least 80 % of all TGF-beta-mediated response. Activated type I receptor phosphorylates receptor-activated SMADS (RSMADS) at their c-terminal two extreme serines in the SSXS motif. The phosphorylated R-SMAD translocate into nucleus, where they regulate transcription of target genes. SMAD3 signal transduction appears to be important in the rgulation of muscle-specific genes. Loss of SMAD3 is a feature of pediatric T-cell lymphoblastic leukemia, while upregulation of SMAD3 may be responsible for TGFB hyperresponsiveness observed in scleroderma.
Molecular Weight:	48081
Gene ID:	4088
NCBI Accession:	NP_001138574, NP_001138575, NP_001138576, NP_005893
UniProt:	P84022
Pathways:	Cell Division Cycle, Chromatin Binding, Cell-Cell Junction Organization, Positive Regulation of Endopeptidase Activity, Autophagy

Application Details

Application Notes:	IF: 1:200. IF: 1:10~50. 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.
Handling Advice:	Avoid freeze-thaw cycles.
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.

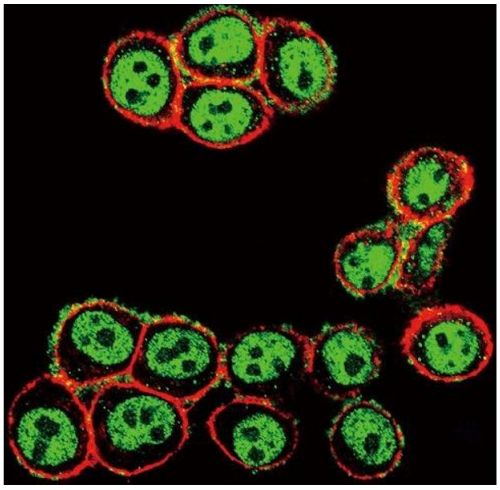
Handling

Expiry Date:	6 months

Publications

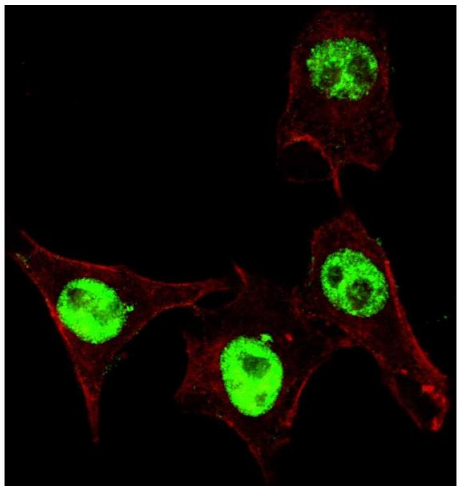
Product cited in:	Cohen-Solal, Merrigan, Chan, Goydos, Chen, Foran, Liu, Lasfar, Reiss: "Constitutive Smad linker phosphorylation in melanoma: a mechanism of resistance to transforming growth factor-?-mediated growth inhibition." in: **Pigment cell & melanoma research**, Vol. 24, Issue 3, pp. 512-24, (2011) (PubMed).

Images



Immunofluorescence

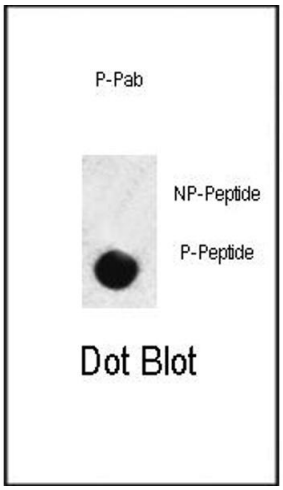
Image 1. Confocal immunofluorescent analysis of Phospho-SD3- Antibody (ABIN389656 and ABIN2850451) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).



Immunofluorescence

Image 2. Fluorescent confocal ige of HeLa cells stained with phospho-SD3- antibody. HeLa cells were fixed with 4 % PFA (20 min), permeabilized with Triton X-100 (0.2 %, 30 min). Cells were then incubated with (ABIN389656 and ABIN2850451) phospho-SD3- priry antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (5.25 µM, 25 min). Pictures were taken on a Biorevo microscope (BZ-900, Keyence).Note the highly specific localization of the phospho-SD3 inly to the nucleus, supported by Hun Protein Atlas Data

(http://www.proteinatlas.org/ENSG00000166949).



Dot Blot

Image 3. Dot blot analysis of anti-hSD3- Phospho-specific Pab (ABIN389656 and ABIN2850451) on nitrocellulose membrane. 50 ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5 µg per ml.