

Product Datasheet

Smad7 Antibody - BSA Free

NBP2-24710

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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Publications: 14

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NBP2-24710

Smad7 Antibody - BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Protein G purified
Buffer	PBS

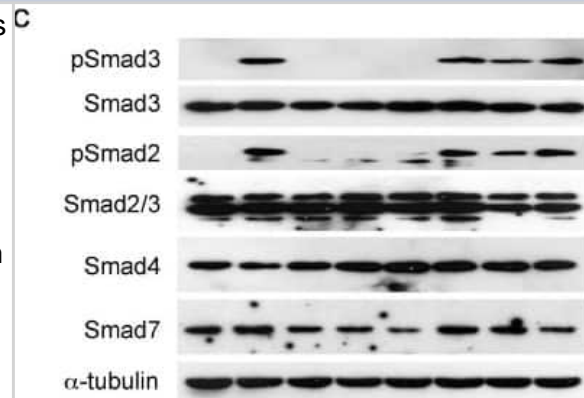
Product Description	
Description	Novus Biologicals Rabbit Smad7 Antibody - BSA Free (NBP2-24710) is a polyclonal antibody validated for use in IHC, WB, ELISA and IP. Anti-Smad7 Antibody: Cited in 14 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	4092
Gene Symbol	SMAD7
Species	Human, Mouse, Sheep
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 24576683).
Specificity/Sensitivity	This antibody may cross-react with SMAD6 depending on cell or tissue-specific expression.
Immunogen	This antibody was raised against two peptides made from within amino acids 10 and 50 of human SMAD7. This sequence is 100% or highly conserved between human and multiple species.

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 2-5 ug/ml, ELISA reported in scientific literature (PMID 32108968), Immunohistochemistry 5-10 ug/ml, Immunoprecipitation, Immunohistochemistry-Paraffin 5 ug/ml

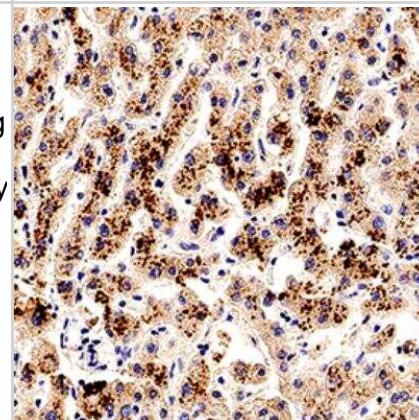


Images

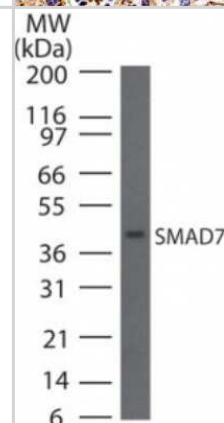
Western Blot: Smad7 Antibody [NBP2-24710] - Effect of mTOR inhibitors on TGF-beta activation of mTOR and Smad pathways. Serum-deprived IPF fibroblasts were treated with or without TGF-beta for 15 minutes in the presence or absence of indicated inhibitors followed by Western blot analysis with an anti-phospho-Smad2 or Smad3 antibody. Expression of total Smad-2, 3, 4 and 7 was analyzed by Western blot. Experiment was done on three lines, which are shown in Figure 1; results were similar between the three lines and results from the IPF fibroblasts isolated from surgical lung biopsy are shown here. Image collected and cropped by CiteAb from the following publication (<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0106155>), licensed under a CC-BY license.



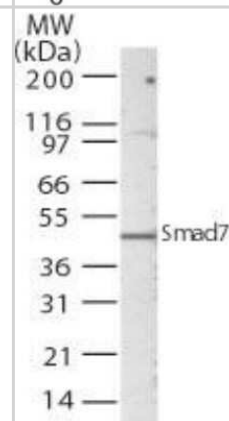
Immunohistochemistry-Paraffin: Smad7 Antibody [NBP2-24710] - IHC analysis of a formalin fixed paraffin-embedded (FFPE) human liver using Smad7 antibody on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) using 10mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching with peroxide block. The sections were incubated with primary antibody for 30 minutes and Bond Polymer Refine Detection (Leica Biosystems) with DAB was used for signal development followed by counterstaining with hematoxylin. Whole slide scanning and capturing of representative images was performed using Aperio AT2 (Leica Biosystems). Cytoplasmic staining of Smad7 was observed. Staining was performed by Histowiz.



Western Blot: Smad7 Antibody [NBP2-24710] - Analysis using SMAD7 antibody. Lysate from HepG2 cells probed with SMAD7 antibody.



Western Blot: Smad7 Antibody [NBP2-24710] - Analysis using the Azide Free version of NBP2-24710. Detection of lysate from A549 cells probed with SMAD7 antibody.



Publications

Takafumi Shichijo, Jun-ichirou Yasunaga, Kei Sato, Kisato Nosaka, Kosuke Toyoda, Miho Watanabe, Wenyi Zhang, Yoshio Koyanagi, Edward L. Murphy, Roberta L. Bruhn, Ki-Ryang Koh, Hirofumi Akari, Terumasa Ikeda, Reuben S. Harris, Patrick L. Green, Masao Matsuoka Vulnerability to APOBEC3G linked to the pathogenicity of deltaretroviruses Proceedings of the National Academy of Sciences of the United States of America 2024-03-19 [PMID: 38502701]

Tang Y, Du E, Wang G et al. A negative feedback loop centered on SMAD3 expression in transforming growth factor β 1-induced corneal myofibroblast differentiation Experimental eye research 2023-09-19 [PMID: 37734427] (WB, Human)

Shrestha R, Mohankumar K, Safe S Bis-indole derived nuclear receptor 4A1 (NR4A1) antagonists inhibit TGF beta-induced invasion of embryonal rhabdomyosarcoma cells American journal of cancer research 2020-08-01 [PMID: 32905449] (WB, Human)

Yang P, Dong X, Zhang Y MicroRNA profiles in plasma samples from young metabolically healthy obese patients and miRNA-21 are associated with diastolic dysfunction via TGF- β 1/Smad pathway J. Clin. Lab. Anal. 2020-02-28 [PMID: 32108968] (ELISA, Human)

Tang Y, Reissig S, Glasmacher E et al. Alternative Splice Forms of CYLD Mediate Ubiquitination of SMAD7 to Prevent TGFB Signaling and Promote Colitis Gastroenterology 2019-02-01 [PMID: 30315770] (WB, Mouse)

Kayalar O, Oztay F. Retinoic acid induced repair in the lung of adult hyperoxic mice, reducing transforming growth factor-B1 (TGF-B1) mediated abnormal alterations. Acta Histochem. [PMID: 24576683] (WB, Mouse)

Details:

Citation using the Azide Free form of this antibody.

Kleiter Ingo, Pedre Xiomara, Mueller Andre M et al. Inhibition of Smad7, a negative regulator of TGF-beta signaling, suppresses autoimmune encephalomyelitis. J Neuroimmunol. 2007-07-01 [PMID: 17553571]

Singha PK, Pandeswara S, Geng H et al. TGF- β induced TMEPA1/PMEPA1 inhibits canonical Smad signaling through R-Smad sequestration and promotes non-canonical PI3K/Akt signaling by reducing PTEN in triple negative breast cancer. Genes Cancer. 2014-09-01 [PMID: 25352949] (WB, Human)

Chang W, Wei K, Ho L et al. A Critical Role for the mTORC2 Pathway in Lung Fibrosis PLoS ONE 2014-08-28 [PMID: 25162417] (WB, Human)

Details:

SMAD7 antibody used for WB on lysates of fibroblasts (isolated from the surgical lung explants of Idiopathic Pulmonary Fibrosis /IPF) stimulated with TGF beta and treated or not with inhibitors MLN0128 (0.2 μ M), PP242 (2 μ M), or rapamycin (0.02 μ M).

Roman-Blas JA, Stokes DG, Jimenez SA. Modulation of TGF-beta signaling by proinflammatory cytokines in articular chondrocytes. Osteoarthritis Cartilage. 2007-12-01 [PMID: 17604656]

Lonn P, Vanlandewijck M, Raja E et al. Transcriptional induction of salt-inducible kinase 1 by transforming growth factor B leads to negative regulation of type I receptor signaling in cooperation with the Smurf2 ubiquitin ligase. J Biol Chem. 2012-04-13 [PMID: 22378783]

Kidd M, Modlin IM, Pfragner R et al. Small bowel carcinoid (enterochromaffin cell) neoplasia exhibits transforming growth factor-beta1-mediated regulatory abnormalities including up-regulation of C-Myc and MTA1. Cancer. 2007-06-15 [PMID: 17469181]

Details:

WB: SMAD4 (IMG-565) and B-actin (IMG-531). Neoplastic kRJ-I enterochromaffin (EC) cells stimulated with growth factor-B1 (TGFB1), Fig 4.

More publications at <http://www.novusbio.com/NBP2-24710>



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Products Related to NBP2-24710

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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