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Anti-Phospho-Smad3 (S423 + S425) Rabbit Monoclonal Antibody

Catalog Number: P00059-1

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Overview

Product Name	Anti-Phospho-Smad3 (S423 + S425) Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Phospho-Smad3 (S423 + S425) Rabbit Monoclonal Antibody catalog # P00059-1. Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse.
Application	IF, IHC, ICC, WB
Clonality	Monoclonal AHO-19
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P84022

Technical Details

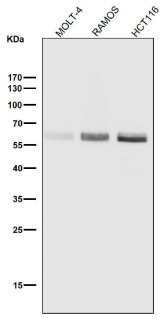
Immunogen	A synthesized peptide derived from human Phospho-Smad3 (S423 + S425)
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB, 1:500-1:2000

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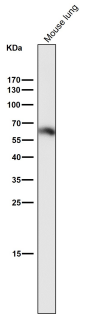
	IHC, 1:50-1:200 ICC/IF, 1:50-1:200

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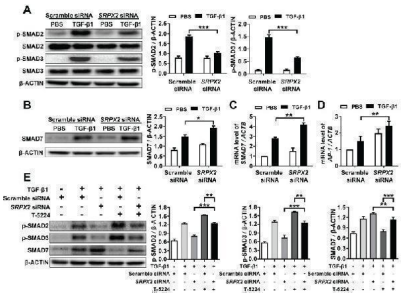
Anti-Phospho-Smad3 (S423 + S425) Rabbit Monoclonal Antibody (P00059-1) Images



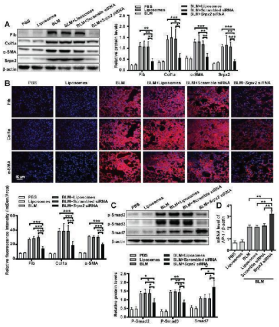
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.

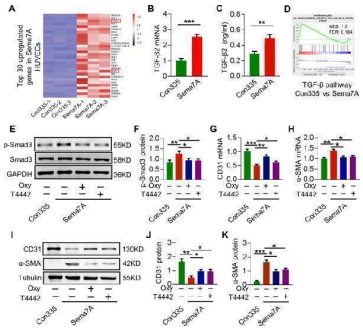


SRPX2 regulated TGF-beta/SMADs signaling pathways by AP1 and SMAD7. A: Results for Western blot analysis of p-SMAD2, SMAD2, p-SMAD3 and SMAD3 expression in HPFs following TGF-beta1 stimulation. B-C : Western blot (B) and RT-PCR (C) analysis of SMAD7 expression in HPFs following TGF-beta1 induction. D : Expression of AP1 in HPFs after TGF-beta1 stimulation. E : Western blot results for analysis of the levels of P-SMAD2, P-SMAD3 and SMAD7 in HPFs pre-treated with T-5224 (an inhibitor for AP-1) treatment following TGF-beta1 induction. The data are represented as the mean ± SEM of three independent experiments. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$.Index in PubMed under a CC BY license. PMID: 34093874

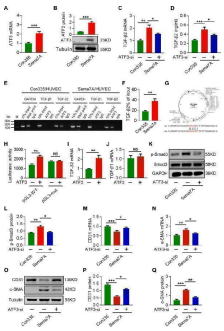


Srpx2 promoted FMT in BLM-induced pulmonary fibrosis. A : Western blot analysis of Fibronectin, Col1a1, alpha-SMA and Srpx2 expression in mice after BLM induction with Scrambled or Srpx2 siRNA-loaded liposomes. B : Representative images of immunostaining of Fibronectin, Col1a1 and alpha-SMA in the mice lung sections. The nuclei were stained blue by DAPI, and the images were taken under original magnification ×400. C : Western blot analysis of p-Smad2, p-Smad3 and Smad7 expression in mice after BLM induction. D : RT-PCR analysis of AP-1 expression in mice in each group. Six mice were included in each study group. The data are represented as the mean ± SEM. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$.Index in PubMed under a CC BY license. PMID: 34093874

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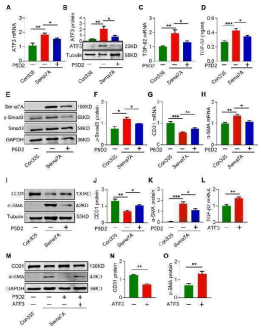


TGF-beta2 gene expression and TGF-Smad signaling are augmented in Sema7A-HUVECs. a The top 30 upregulated genes in Sema7A-HUVECs compared with Con335-HVUECs. b TGF-beta2 mRNA level was analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, *** $p < 0.001$. c The concentration of TGF-beta2 in cell supernatant was detected by ELISA. N = 10. Unpaired two-tailed Student's t tests was used to analysis the data. Data are mean ± SEM, ** $p < 0.01$. d GSEA based on gene ontology (GO) pathway database showed TGF-beta signaling pathway was enrich in Sema7A-HUVECs. e , f Cells were treated with Oxymatrine (Oxy) (20 umol/l) or T4442 (1 ug/ml) and the lysates were analyzed by western blotting for Smad3 phosphorylation, normalized to total Smad3. Data are mean ± SEM, N = 3, * $p < 0.05$; ** $p < 0.01$. g , h CD31 and alpha-SMA mRNA in cells treated with inhibitors were analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. i – k CD31 and alpha-SMA proteins in cells treated with inhibitors were analysis by western blotting, normalized to tubulin. Data are mean ± SEM, N = 3, * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. T4442: TGF-beta2 blocking antibody; Oxymatrine (Oxy): TGF/Smad signaling pathway inhibitor. Index in PubMed under a CC BY license. PMID: 32826874

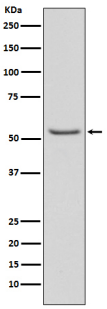


Inhibition of ATF3 reduced TGF-beta2 expression and Sema7A-induced EndMT. a ATF3 mRNA level was analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, *** $p < 0.001$ b ATF3 protein expression were analyzed by western blotting, normalized to tubulin. Data are mean ± SEM, N = 3, *** $p < 0.001$. c TGF-beta2 mRNA level was analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, * $p < 0.05$; ** $p < 0.01$. d The concentration of TGF-beta2 in cell supernatant was detected by ELISA among Con335-HUVECs, Sema7A-HUVECs, and Sema7A-HUVECs + ATF3-siRNA. N = 10. Data are mean ± SEM, * $p < 0.05$; *** $p < 0.001$. e Chip-qPCR product in agarose gel electrophoresis. f Chip-qPCR TGF-beta2 percentage of input in con335-HUVECs and Sema7A - HUVECs were analyzed by qPCR normalized to IgG. Data are mean ± SEM, N = 3, ** $p < 0.01$. g Schematic graph of the constructed reporter plasmid. TGF-beta2 mut indicates the TGF-beta2 mutation promoter region in ATF3 binding site. The mutated nucleotides in TGF-beta2 fragments are in red letters. h Luciferase reporter assays were performed on HEK 293 T cells. Data are mean ± SEM, N = 3, ** $p < 0.01$ vs negative control. i , j ATF3-overexpression plasmid was transfected to HUVECs, and the mRNA levels of TGF - beta2 and TGF-beta1 were performed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, ** $p < 0.01$. k , l P-Smad3 protein in cells treated with siRNA was analyzed by Western blotting, normalized to total Smad3. Data are mean ± SEM, N = 3, * $p < 0.05$; ** $p < 0.01$. m – q CD31 and alpha-SMA RNA and proteins in cells treated with siRNA or control was analyzed by qPCR and western blotting. Data are mean ± SEM, N = 3, * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Index in PubMed under a CC BY license. PMID: 32826874

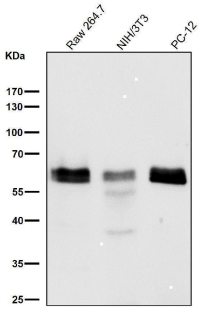
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B1 integrin mediates Sema7A signal to TGF-beta2 via ATF3. a Cells were treated with beta1 integrin antibody (P5D2), and ATF3 mRNA level was analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, * p < 0.05; ** p < 0.0.1. b ATF3 protein expression was analyzed by western blotting, normalized to tubulin. Data are mean ± SEM, N = 3, * p < 0.05; ** p < 0.01. c TGF-beta2 mRNA level was analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, * p < 0.05; ** p < 0.0.1. d The concentration of TGF-beta2 in cell supernatant was detected by ELISA for Con335-HUVECs, Sema7A-HUVECs, and Sema7A-HUVECs + P5D2. Data are mean ± SEM, N = 10, * p < 0.05; *** p < 0.001. e , f Smad3 phosphorylation were analyzed by western blotting, normalized to total Smad3. Data are mean ± SEM, N = 3, * p < 0.05. g , h CD31 and alpha-SMA mRNA level were analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, * p < 0.05; ** p < 0.01; *** p < 0.001. i – k CD31 and alpha-SMA proteins were analyzed by western blotting, normalized to tubulin. Data are mean ± SEM, N = 3, * p < 0.05; ** p < 0.01; *** p < 0.001. l ATF3 overexpression plasmid was transfected into P5D2 incubated Sema7A-HUVECs, and TGF-beta2 mRNA expression in Sema7A-HUVECs + P5D2 and Sema7A-HUVECs + P5D2 + ATF3 were analyzed by qPCR normalized to GAPDH. Fold changes are shown. Data are mean ± SEM, N = 3, ** p < 0.01. m – o CD31 and alpha-SMA protein expressions were analyzed by western blotting, normalized to GAPDH. Data are mean ± SEM, N = 3, ** p < 0.01 (Sema7A-HUVECs + P5D2 vs Sema7A-HUVECs + P5D2 + ATF3). P5D2 beta1 integrin antibody. Index in PubMed under a CC BY license. PMID: 32826874



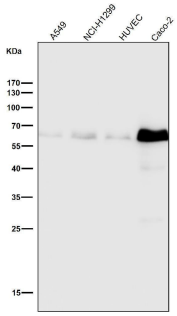
Western blot analysis of Phospho-Smad3 (S423/S425) expression in A549 cell lysate treated with TGF-?1.

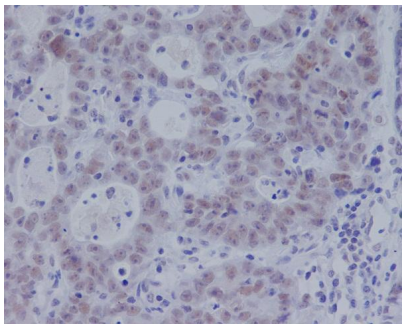


All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.

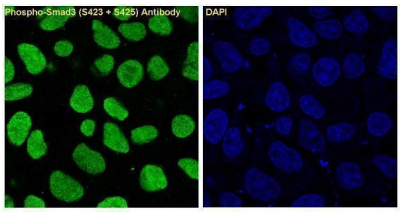
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Immunohistochemical analysis of paraffin-embedded human gastric adenocarcinoma, using Phospho-Smad3 (S423 + S425) Antibody.



Immunofluorescent analysis of A549 cells treated with TGFbeta , using Phospho-Smad3 (S423 + S425) Antibody.

1 Publications Citing This Product

1. PubMed ID: 25356121, Shi K, Jiang J, Ma T, Xie J, Duan L, Chen R, Song P, Yu Z, Liu C, Zhu Q, Zheng J. Int J Clin Exp Med. 2014 Sep 15;7(9):2645-50. Ecollection 2014. Dexamethasone Attenuates Bleomycin-Induced Lung Fibrosis In Mice Through Tgf-??, Smad3 And Jak-Stat P...

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