bs-3484R **[Primary Antibody]**

Smad3 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 4088 **SWISS:** P84022

Target: Smad3

Immunogen: KLH conjugated synthetic peptide derived from human Smad3: 31-80/425.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Smad3 is a 50 kDa member of a family of proteins that act as key mediators of TGF beta superfamily signaling in cell proliferation, differentiation and development. The Smad family is divided into three subclasses: receptor regulated Smads, activin/TGF beta receptor regulated (Smad2 and 3) or BMP receptor regulated (Smad 1, 5, and 8); the common partner, (Smad4) that functions via its interaction to the various Smads; and the inhibitory Smads, (Smad6 and 7). Activated Smad3 oligomerizes with Smad4 upon TGF beta stimulation and translocates as a complex into the nucleus, allowing its binding to DNA and transcription factors. Phosphorylation of the two TGF beta dependent serines 423 and 425 in the C terminus of Smad3 is critical for Smad3 transcriptional activity and TGF beta signaling.

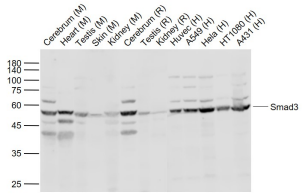
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)
ICC/IF (1:100)

Reactivity: Human, Mouse, Rat, Pig (predicted: Cow, Chicken)

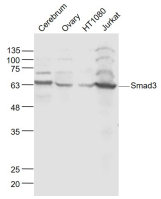
Predicted MW.: 47 kDa

Subcellular Location: Cytoplasm ,Nucleus

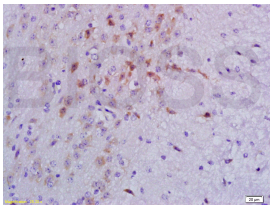
VALIDATION IMAGES



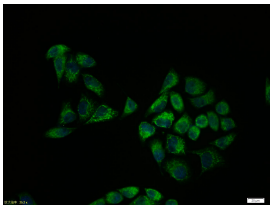
Sample: Lane 1: Cerebrum (Mouse) Lysate at 40 ug Lane 2: Heart (Mouse) Lysate at 40 ug Lane 3: Testis (Mouse) Lysate at 40 ug Lane 4: Skin (Mouse) Lysate at 40 ug Lane 5: Kidney (Mouse) Lysate at 40 ug Lane 6: Cerebrum (Rat) Lysate at 40 ug Lane 7: Testis (Rat) Lysate at 40 ug Lane 8: Kidney (Rat) Lysate at 40 ug Lane 9: Huvec (Human) Cell Lysate at 30 ug Lane 10: A549 (Human) Cell Lysate at 30 ug Lane 11: Hela (Human) Cell Lysate at 30 ug Lane 12: HT1080 (Human) Cell Lysate at 30 ug Lane 13: A431 (Human) Cell Lysate at 30 ug Primary: Anti-Smad3 (bs-3484R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 52 kD Observed band size: 54 kD



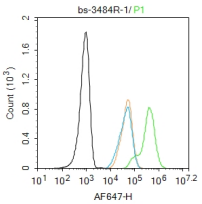
Sample: Cerebrum (Mouse) Lysate at 40 ug Ovary (Mouse) Lysate at 40 ug HT1080 (Human) Cell Lysate at 30 ug Jurkat (Human) Cell Lysate at 30 ug Primary: Anti- Smad3 (bs-3484R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 52 kD Observed band size: 60 kD



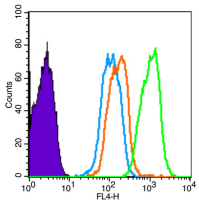
Tissue/cell: mouse lymphoma tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-Smad3 Polyclonal Antibody, Unconjugated(bs-3484R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Smad3) polyclonal Antibody, Unconjugated (bs-3484R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Blank control: Hela. Primary Antibody (green line): Rabbit Anti-Smad3 antibody (bs-3484R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647 Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control (Black line): HUVEC (Black). Primary Antibody (green line): Rabbit Anti-Smad3 antibody (bs-3484R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647 Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=8.5]** Genghua Chen. et al. Bulk and single-cell alternative splicing analyses reveal roles of TRA2B in myogenic differentiation. CELL PROLIFERAT. 2023 Sep;:e13545 WB ;Chicken. 37705195
- **[IF=7.5]** Xiaochen Sun. et al. Study on the mechanism of stir-fried Fructus Tribuli in enhancing the essential hypertension treatment by an integrated "spectrum-effect relationship-network pharmacology-metabolomics" strategy. BIOMED PHARMACOTHER. 2023 Sep;165:115160 IHC ;Rat. 37459662
- **[IF=7.2]** Lin Niu. et al. Magnolol alleviates pulmonary fibrosis inchronic obstructive pulmonary disease by targeting transient receptor potential vanilloid 4-ankyrin repeat domain. PHYTOTHER RES. 2023 Jun;: IF,WB ;Human. 37282760
- **[IF=6.7]** Yantong Guo. et al. Asiaticoside modulates human NK cell functional fate by mediating metabolic flexibility in the tumor microenvironment. PHYTOMEDICINE. 2024 Oct;133:155921 WB ;Human. 39121533
- **[IF=5.589]** Lv Y et al. Imidacloprid-induced liver fibrosis in quails via activation of the TGF-β1/Smad pathway. Sci Total Environ. 2019 Dec 6;705:135915. WB ;Quail. 31835194