bs-20341R **[Primary Antibody]**

phospho-Smad2 (Ser250) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 4087 **SWISS:** Q15796

Target: Smad2 (Ser250)

Immunogen: KLH conjugated synthesised phosphopeptide derived from human Smad2 around the phosphorylation site of Ser250: EL(p-S)PT.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signal of the transforming growth factor (TGF)-beta, and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors. The phosphorylation induces the dissociation of this protein with SARA and the association with the family member SMAD4. The association with SMAD4 is important for the translocation of this protein into the nucleus, where it binds to target promoters and forms a transcription repressor complex with other cofactors. This protein can also be phosphorylated by activin type 1 receptor kinase, and mediates the signal from the activin. Alternatively spliced transcript variants have been observed for this gene. [provided by RefSeq, May 2012]

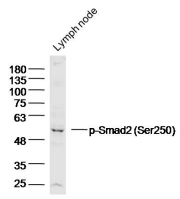
Applications: **WB** (1:500-2000)
Flow-Cyt (1ug/Test)

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

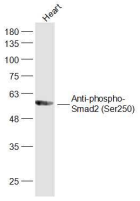
Predicted MW.: 58 kDa

Subcellular Location: Cytoplasm ,Nucleus

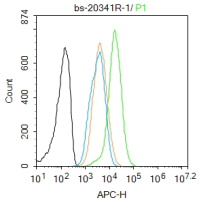
VALIDATION IMAGES



Sample:Lymph node (Mouse)Lysate at 40 ug Primary: Anti-p-Smad2 (Ser250)(bs-20341R)at 1/300 dilution Secondary: IRDye800CW Goat Anti-RabbitIgG at 1/20000 dilution Predicted band size: 58kD Observed band size: 58kD



Sample: Heart (Mouse) Lysate at 40 ug Primary: Anti-Anti-phospho-Smad2 (bs-20341R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 58 kD Observed band size: 58 kD



Blank control（black line）:Hela. Primary Antibody (green line): Rabbit Anti-phospho-Smad2 (Ser250) antibody (bs-20341R) Dilution:1ug/Test; Secondary Antibody（white blue line）: Goat anti-rabbit IgG-AF488 Dilution: 0.5ug/Test. Isotype control（orange line）: Normal Rabbit IgG 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.

SELECTED CITATIONS

- **[IF=4.8]** Huaixin Teng. et al. Podocan promoting skeletal muscle post-injury regeneration by inhibiting TGF-β signaling pathway. FASEB J. 2024 Mar;38(5):e23502 WB ;Mouse. 38430223
- **[IF=4.8]** Wenzhou Wang. et al. Transforming growth factor-β3/Smad2/Smad3 Signaling Pathway Inhibition and Autophagy by the Yunpi-Xiefei-Huatan Decoction Ameliorated Airway Inflammation and Mucus Hypersecretion in Asthmatic Rats. J ETHNOPHARMACOL. 2024 Nov;:119125 WB ;Rat. 39581284
- **[IF=4.175]** Huajun Wang. et al. LncRNA NEAT1 promotes proliferation, migration, invasion and epithelial-mesenchymal transition process in TGF-β2-stimulated lens epithelial cells through regulating the miR-486-5p/SMAD4 axis. Cancer Cell Int. 2020 Dec;20(1):1-12 WB ;Human. 33292220
- **[IF=3.913]** Xiaoliang Zhou. et al. Ursolic acid inhibits human dermal fibroblasts hyperproliferation, migration, and collagen deposition induced by TGF-β via regulating the Smad2/3 pathway. GENE. 2023 May;867:147367 WB ;Human. 36931410
- **[IF=3.3]** Kaiqiang Meng. et al.The mutualistic relationship between M2c macrophages of TGFβ1 induction and gastric cancer cells: the correlation between protective mechanisms in the tumor microenvironment and polarization of subtypes of cells.JOURNAL OF CANCER.2025 Feb 3;16(5):1598-1617. Western Blot ;human. 39991579