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## Smad2 Recombinant Rabbit mAb

Catalog Number: bsm-52223R

Target Protein: Smad2

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Recombinant

Clone No.: 9A3

Isotype: IgG

Applications: WB (1:500-2000), IHC-P (1:50-200), IHC-F (1:50-200), IF (1:50-200), Flow-Cyt (1ug/Test), ICC/IF (1:50-200)

Reactivity: Human, Mouse, Rat

Predicted MW: 52 kDa

Entrez Gene: 4087

Swiss Prot: Q15796

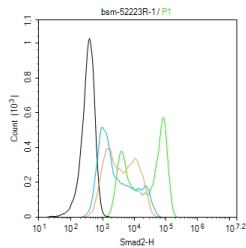
Purification: affinity purified by Protein A

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

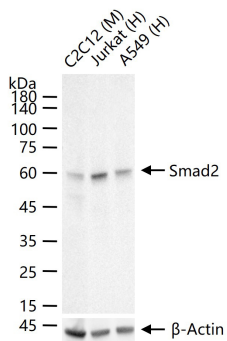
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** 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]

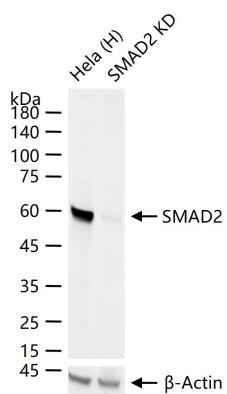
## VALIDATION IMAGES



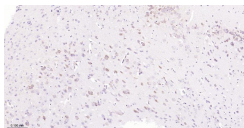
The HeLa (H) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.). Primary Antibody (green): Rabbit Anti-Smad2 antibody (bsm-52223R): 1 µg/10<sup>6</sup> cells; Secondary Antibody (white blue): Goat anti-Rabbit IgG-FITC (bs-40295G-FITC): 1 µg/test. Isotype Control (orange): Rabbit IgG (bs-0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed.



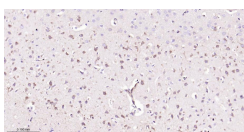
25 ug total protein per lane of various lysates (see on figure) probed with Smad2 monoclonal antibody, unconjugated (bsm-52223R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



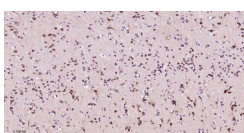
25 ug total protein per lane of various lysates (see on figure) probed with SMAD2 monoclonal antibody, unconjugated (bsm-52223R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Paraformaldehyde-fixed, paraffin embedded Mouse Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Smad2 Monoclonal Antibody, Unconjugated (bsm-52223R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Smad2 Monoclonal Antibody, Unconjugated (bsm-52223R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Human Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Smad2 Monoclonal Antibody, Unconjugated (bsm-52223R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.

## PRODUCT SPECIFIC PUBLICATIONS

[IF=4.694] Qi SS et al. Protective Effects of Chromium Picolinate Against Diabetic-Induced Renal Dysfunction and Renal Fibrosis in Streptozotocin-Induced Diabetic Rats. *Biomolecules*. 2020 Mar 4;10(3). IHC ; rat . 32143429