

Anti-SMAD2 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human, Mouse, Rat (predicted: Chicken, Dog, Cow, Rabbit)
Molecular Weight:	Theoretical: 52 kDa. Actual: 60 kDa.
Purification:	Protein A purified

Applications

1. Sample:

Lane 1: Cerebrum (Mouse) Lysate at 40 µg

Lane 2: Heart (Mouse) Lysate at 40 µg

Lane 3: Testis (Mouse) Lysate at 40 µg

Lane 4: Kidney (Mouse) Lysate at 40 µg

Lane 5: Placenta (Mouse) Lysate at 40 µg

Lane 6: Cerebrum (Rat) Lysate at 40 µg

Lane 7: Heart (Rat) Lysate at 40 µg

Lane 8: Testis (Rat) Lysate at 40 µg

Lane 9: Kidney (Rat) Lysate at 40 µg

Lane 10: HeLa (Human) Cell Lysate at 30 µg

Lane 11: HT1080 (Human) Cell Lysate at 30 µg

Lane 12: Jurkat (Human) Cell Lysate at 30 µg

Lane 13: Raw264.7 (Mouse) Cell Lysate at 30 µg

Lane 14: HL60 (Human) Cell Lysate at 30 µg

Primary: Anti-Smad2 (TMAB-01736) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 60 kDa

Observed band size: 60 kDa

Verified Activity:

2. Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Smad2) Polyclonal Antibody, Unconjugated (TMAB-01736) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

3. Blank control (Black line): Mouse spleen (Black).

Primary Antibody (green line): Rabbit Anti-Smad2 antibody (TMAB-01736)

Dilution: 1 µg/10⁶ cells;

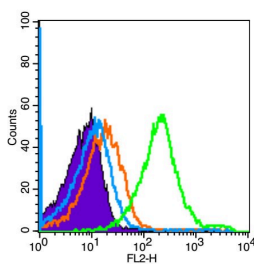
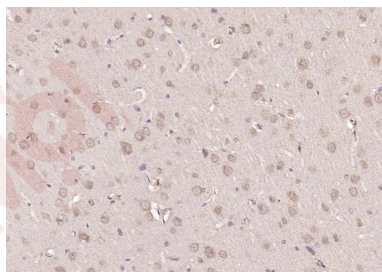
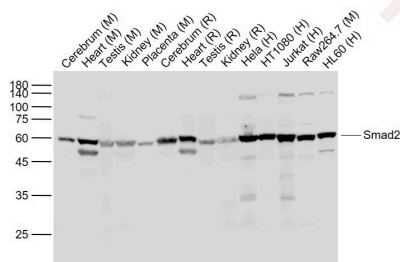
Isotype Control Antibody (orange line): Rabbit IgG.

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: 1 µg/test.

Protocol

The cells were fixed with 4% PFA (10 min 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 goat serum to block non-specific protein-protein interactions for 15 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.



Application: FCM,IF,IHC-Fr,IHC-P,WB

Recommended WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1µg/Test

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: KLH conjugated synthetic peptide: human Smad2

Antigen Species: Human

Gene ID: 4087

Uniprot ID: Q15796

Synonyms: Mothers against decapentaplegic homolog 2;MADH2;SMAD2;JV18-1;Mothers against DPP homolog 2;Mad-related protein 2 (hMAD-2);MADR2;MAD homolog 2;SMAD family member 2 (SMAD 2;Smad2;hSMAD2)

Biology Area: TGF,SMADs,SMADs,Cytoplasmic

Research 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

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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]

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