

Phospho-Smad2-T220 Rabbit pAb

Catalog No.: AP0909

Basic Information

Observed MW

60kDa

Calculated MW

52kDa

Category

Primary antibody

Applications

ELISA, WB, IHC-P

Cross-Reactivity

Human, Mouse, Rat

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.

Recommended Dilutions

WB 1:500 - 1:1000**IHC-P** 1:50 - 1:200

Immunogen Information

Gene ID

4087

Swiss Prot

Q15796

Immunogen

A synthetic phosphorylated peptide around T220 of human Smad2 (NP_005892.1).

Synonyms

JV18; LDS6; CHTD8; MADH2; MADR2; JV18-1; hMAD-2; hSMAD2; Phospho-Smad2-T220

Contact

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Product Information

Source

Rabbit

Isotype

IgG

Purification

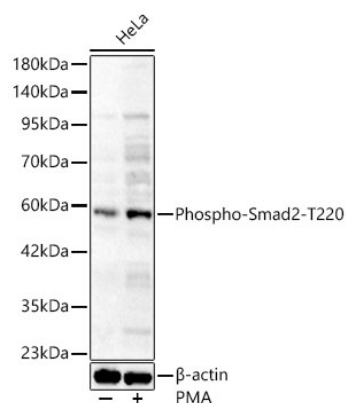
Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.01% thimerosal, 50% glycerol, pH7.3.

Validation Data



Western blot analysis of lysates from HeLa cells using Phospho-Smad2-T220 Rabbit pAb (AP0909) at 1:500 dilution. HeLa cells were treated by PMA/TPA (200 nM) at 37°C for 10 minutes after serum-starvation overnight.

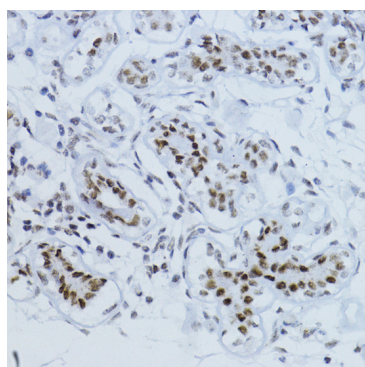
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 30 µg per lane.

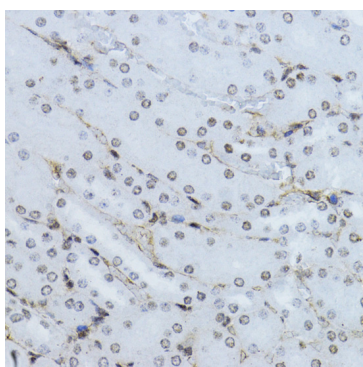
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

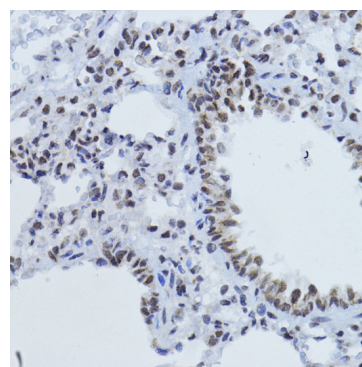
Exposure time: 60s.



Immunohistochemistry analysis of Phospho-Smad2-T220 in paraffin-embedded human breast using Phospho-Smad2-T220 Rabbit pAb (AP0909) at dilution of 1:100 (40x lens). Perform microwave antigen retrieval with 10 mM Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry analysis of Phospho-Smad2-T220 in paraffin-embedded mouse kidney using Phospho-Smad2-T220 Rabbit pAb (AP0909) at dilution of 1:100 (40x lens). Perform microwave antigen retrieval with 10 mM Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry analysis of Phospho-Smad2-T220 in paraffin-embedded rat lung using Phospho-Smad2-T220 Rabbit pAb (AP0909) at dilution of 1:100 (40x lens). Perform microwave antigen retrieval with 10 mM Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.