

# Phospho-Smad2-T220 Rabbit pAb

Catalog No.: AP0909

## Basic Information

**Observed MW**

60kDa

**Calculated MW**

52kDa

**Category**

Primary antibody

**Applications**

WB, IHC-P, ELISA

**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**ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

## Immunogen Information

**Gene ID**

4087

**Swiss Prot**

Q15796

**Immunogen**

Synthetic peptide. This information is considered to be commercially sensitive.

**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**

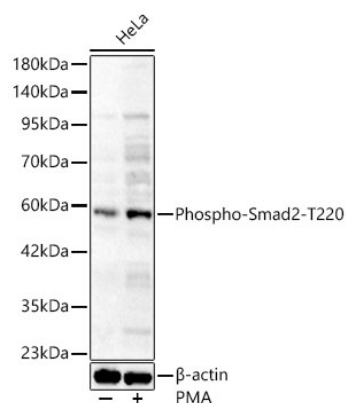
Affinity purification

**Storage**

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

Buffer: PBS containing 50% glycerol, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

## 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 with PMA/TPA (200 nM) at 37°C for 10 minutes after serum-starvation overnight.

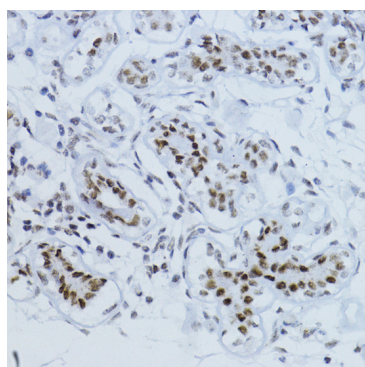
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 30 µg per lane.

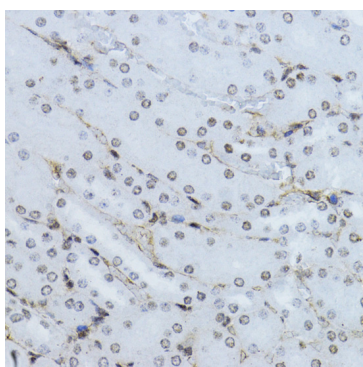
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

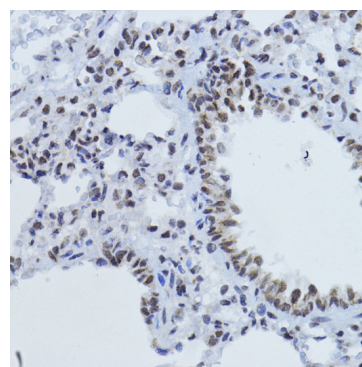
Exposure time: 60s.



Immunohistochemistry analysis of paraffin-embedded Human breast using Phospho-Smad2-T220 Rabbit pAb (AP0909) at dilution of 1:100 (40x lens). Microwave antigen retrieval performed with 0.01M Tris/EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse kidney using Phospho-Smad2-T220 Rabbit pAb (AP0909) at dilution of 1:100 (40x lens). Microwave antigen retrieval performed with 0.01M Tris/EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat lung using Phospho-Smad2-T220 Rabbit pAb (AP0909) at dilution of 1:100 (40x lens). Microwave antigen retrieval performed with 0.01M Tris/EDTA Buffer (pH 9.0) prior to IHC staining.