

For Research Use Only

Multi-rAb® SMAD2 Multi-Recombinant antibody

Catalog Number: RMX00035



Basic Information

Catalog Number:

RMX00035

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC014840

GeneID (NCBI):

4087

UNIPROT ID:

Q15796

Full Name:

SMAD family member 2

Calculated MW:

467 aa, 52 kDa

Observed MW:

58 kDa

Purification Method:

N/A

Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:200-1:800

IF/ICC: 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Species Specificity:

human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : A549 cells, HeLa cells, NIH/3T3 cells, C6 cells

IP : A549 cells,

IHC : human colon cancer tissue,

IF/ICC : HepG2 cells,

Background Information

SMAD2, also named as MADH2 and MADR2, belongs to the dwarfin/SMAD family, contains 1 MH1 (MAD homology 1) domain and 1 MH2 (MAD homology 2) domain. SMAD2 is a receptor-regulated SMAD(R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta and activin type 1 receptor kinases. This protein may act as a tumor suppressor in colorectal carcinoma. It is phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, It is phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases, and then able to interact with SMURF2, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, it is phosphorylated on Ser-240 by CaMK2. It is phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin. In response to TGF-beta, it is ubiquitinated by NEDD4L, which promotes its degradation. In response to TGF-beta signaling, it is acetylated on Lys-19 by coactivators, which increases transcriptional activity. The molecular weight of unphosphorylated forms of Smad2 is 52 kDa and phosphorylated forms of Smad2 is 58 kDa. (PMID: 9006934)

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

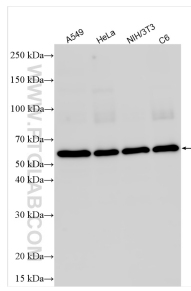
T: 4006900926

E: Proteintech-CN@ptglab.com

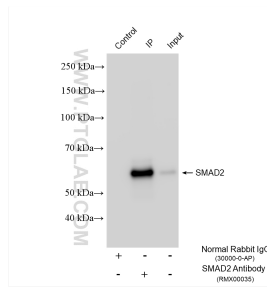
W: ptgcn.com

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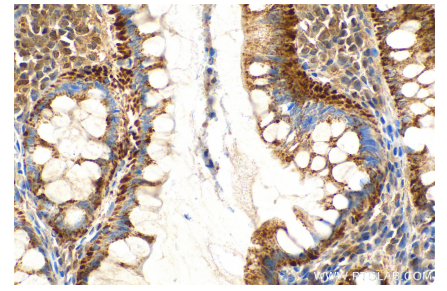
Selected Validation Data



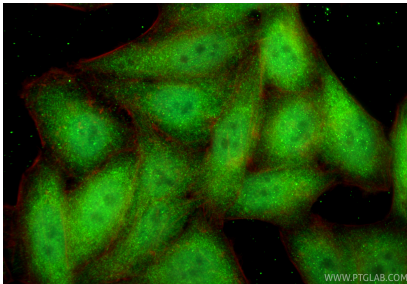
Various lysates were subjected to SDS PAGE followed by western blot with RMX00035 (SMAD2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



IP result of anti-SMAD2 (IP:RMX00035, 4ug; Detection:RMX00035 1:10000) with A549 cells lysate 920 ug.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using RMX00035 (SMAD2 antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using SMAD2 antibody (RMX00035) at dilution of 1:400 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).