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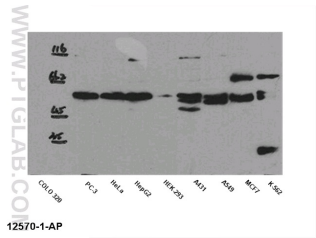
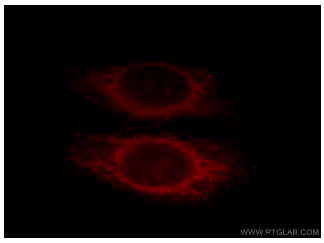
SMAD2 Polyclonal Antibody

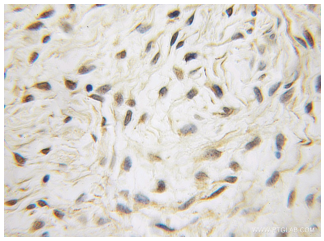
Catalog number: 12570-1-AP
Size: 24 µg/150 µl
Source: Rabbit
Isotype: IgG
Synonyms:
SMAD2; hMAD 2, hSMAD2, JV18, JV18 1, MAD homolog 2, Mad related protein 2, MADH2, MADR2, Mothers against DPP homolog 2, SMAD 2, SMAD family member 2, SMAD2



WB result of anti-SMAD2 (12570-1-AP) in different cell lysates.



Immunofluorescent analysis of HepG2 cells, using SMAD2 antibody 12570-1-AP at 1:25 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).



Immunohistochemical of paraffin-embedded human endometrial cancer using 12570-1-AP(SMAD2 antibody) at dilution of 1:50 (under 10x lens)

Background

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 (transforming growth factor) 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. This antibody is a rabbit polyclonal antibody raised against residues near the N terminus of human SMAD2.

Applications

Tested applications:	**ELISA, WB, IHC, IF, IP**
Cited applications:	**WB**
Species specificity:	**Human,Mouse,Rat; other species not tested.**
Cited species:	**Human, mouse, rat**
Caculated SMAD2 MW:	**467aa,52 kDa**
Observed SMAD2 MW:	**58kd**
Positive WB detected in	**HeLa cells, HepG2 cells, Jurkat cells, K-562 cells, mouse skeletal muscle tissue, rat skeletal muscle tissue**
Positive IP detected in	**HepG2 cells**
Positive IHC detected in	**Human endometrial cancer tissue, human cervical cancer tissue, human heart tissue**
Positive IF detected in	**HepG2 cells**
Recommended dilution:	**WB: 1:500-1:5000** **IP: 1:500-1:5000** **IHC: 1:20-1:200** **IF: 1:10-1:100**

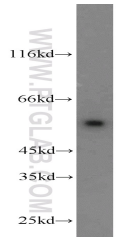
Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

Immunogen information

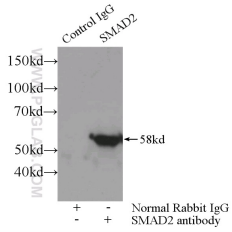
Immunogen:	**Ag3237**
GenBank accession number:	**BC014840**
Gene ID (NCBI):	**4087**
Full name:	**SMAD family member 2**

Product information

Purification method:	**Antigen affinity purification**
Storage:	**PBS with 0.02% sodium azide and 50% glycerol pH 7.3. Store at -20°C.**



HeLa cells were subjected to SDS PAGE followed by western blot with 12570-1-AP(SMAD2 antibody) at dilution of 1:1000



IP Result of anti-SMAD2 (IP:12570-1-AP, 3ug; Detection:12570-1-AP 1:1000) with HepG2 cells lysate 3000ug.