

For Research Use Only

# CoraLite® Plus 488-conjugated SMAD2 Recombinant antibody

Catalog Number: CL488-83841-5



## Basic Information

### Catalog Number:

CL488-83841-5

### Size:

100ul, Concentration: 1000 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG3237

### 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:

Protein A purification

### CloneNo.:

240950A11

### Recommended Dilutions:

IF/ICC 1:50-1:500

### Excitation/Emission maxima wavelengths:

493 nm / 522 nm

## Applications

### Tested Applications:

IF/ICC

### Species Specificity:

human, rat

### Positive Controls:

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. Avoid exposure to light. Stable for one year after shipment.

### Storage Buffer:

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

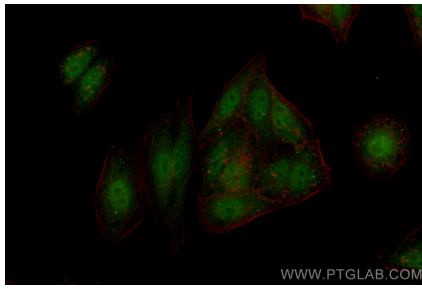
For technical support and original validation data for this product please contact:

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## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CoraLite® Plus 488 SMAD2 antibody (CL488-83841-5, Clone: 240950A11 ) at dilution of 1:200.