

For Research Use Only

# CoraLite®594-conjugated Phospho-SMAD2 (Ser465/467)/SMAD3 (Ser423/425) Recombinant antibody

Catalog Number:CL594-80427-2



## Basic Information

**Catalog Number:**

CL594-80427-2

**Size:**

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

**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:**

60 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

240826D11

**Excitation/Emission maxima wavelengths:**

588 nm / 604 nm

## Applications

**Tested Applications:**

FC (Intra)

**Species Specificity:**

human

## 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

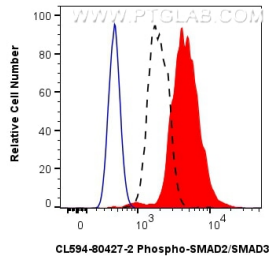
For technical support and original validation data for this product please contact:

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**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

## Selected Validation Data



$1 \times 10^6$  HEK-293 cells untreated (dashed lines) or treated with Calyculin A which intracellularly stained with 0.25 ug CoraLite@594 Phospho-Smad2 (Ser465/467)/Smad3 (Ser423/425) Recombinant Antibody (CL594-80427-2, Clone:240826D11)(red), or 0.25 ug CoraLite@594 Rabbit IgG Isotype Control RecAb (CL594-98136, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.