

For Research Use Only

CoraLite® Plus 647-conjugated Phospho-SMAD2 (Ser465/467)/SMAD3 (Ser423/425) Recombinant antibody

Catalog Number: CL647-80427-2



Basic Information

Catalog Number:

CL647-80427-2

Concentration:

1000 ug/ml

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:

654 nm / 674 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:

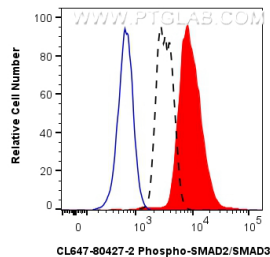
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



1X10⁶ HEK-293 cells untreated (dashed lines) or treated with Calyculin A which intracellularly stained with 0.25 ug Coralite® Plus 647 Phospho-Smad2 (Ser465/467)/Smad3 (Ser423/425) Recombinant Antibody (CL647-80427-2, Clone:240826D11)(red), or 0.25 ug Coralite® Plus 647 Rabbit IgG Isotype Control RecAb (CL647-98136, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.