For Research Use Only

Phospho-SMAD2 (Ser465/467) Recombinant antibody

Catalog Number:80427-2-RR 1 Publications

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Basic Information

Catalog Number:
80427-2-RR

Size:
1000 μg/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 purfication

CloneNo.:
240826D11

Recommended Dilutions:
WB 1:1000-1:4000

Applications

Tested Applications:
WB, ELISA

Cited Applications:
WB

Species Specificity:
human

Cited Species:
human

Positive Controls:

WB : Calyculin A treated HEK-293 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)

Notable Publications

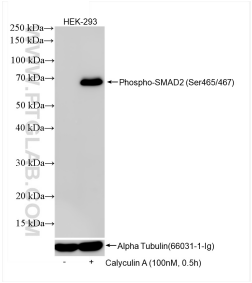
Author	Pubmed ID	Journal	Application
Shenyang Liu	39224804	Front Oncol	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
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

Selected Validation Data



Non-treated and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 80427-2-RR (Phospho-SMAD2 (Ser465/467) antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as a loading control.