

For Research Use Only

Phospho-SMAD2 (Ser465/467) Recombinant antibody, PBS Only

Catalog Number: 80427-2-PBS



Basic Information

Catalog Number: 80427-2-PBS	GenBank Accession Number: BC014840	Purification Method: Protein A purification
Size: 1 mg/ml	GeneID (NCBI): 4087	CloneNo.: 240826D11
Source: Rabbit	UNIPROT ID: Q15796	
Isotype: IgG	Full Name: SMAD family member 2	
	Calculated MW: 467 aa, 52 kDa	
	Observed MW: 60 kDa	

Applications

Tested Applications:
WB, ELISA

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 -80°C.
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

Storage Buffer:
PBS Only

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

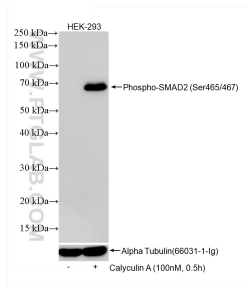
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



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. This data was developed using the same antibody clone with 80427-2-PBS in a different storage buffer formulation.