

For Research Use Only

# SMAD4 Recombinant antibody, PBS Only (Capture)

Catalog Number: 83169-5-PBS

Featured Product



## Basic Information

<b>Catalog Number:</b> 83169-5-PBS	<b>GenBank Accession Number:</b> BC002379	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 4089	<b>CloneNo.:</b> 240026G9
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q13485	
<b>Isotype:</b> IgG	<b>Full Name:</b> SMAD family member 4	
<b>Immunogen Catalog Number:</b> AG0299	<b>Calculated MW:</b> 60 kDa	
	<b>Observed MW:</b> 63-70 kDa	

## Applications

**Tested Applications:**  
WB, IF/ICC, FC (Intra), Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human, mouse

## Product Information

83169-5-PBS targets SMAD4 as part of a matched antibody pair:

MP00267-4: 83169-5-PBS capture and 83169-6-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## Background Information

Mammalian homologs of the Drosophila Mad gene include Smad1, Smad2, Smad3, Smad4 (DPC4), Smad5, Smad6, Smad7 and Smad8. Smad1 and Smad5 are effectors of BMP2 and BMP4 function while Smad2 and Smad3 are involved in TGF and activin-mediated growth modulation. Smad4 has been shown to mediate all of the above activities through interaction with various Smad family members. Smad6 and Smad7 regulate the response to activin/ TGF signaling by interfering with TGF-mediated phosphorylation of other Smad family members.

## Storage

**Storage:**  
Store at -80°C.  
**Storage Buffer:**  
PBS Only

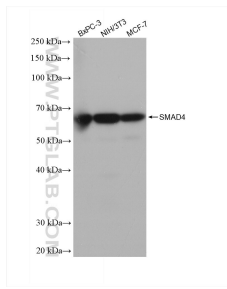
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

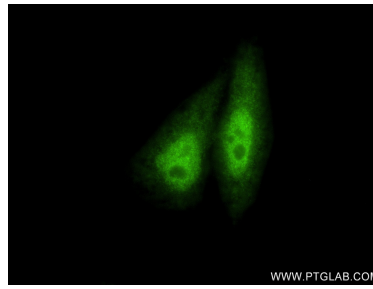
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

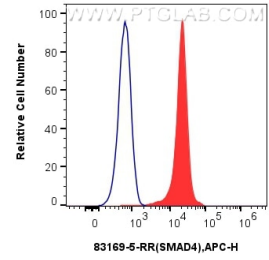
# Selected Validation Data



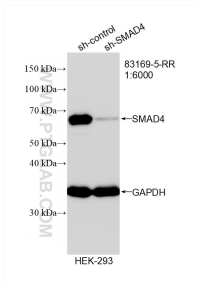
Various lysates were subjected to SDS PAGE followed by western blot with 83169-5-RR (SMAD4 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83169-5-PBS in a different storage buffer formulation.



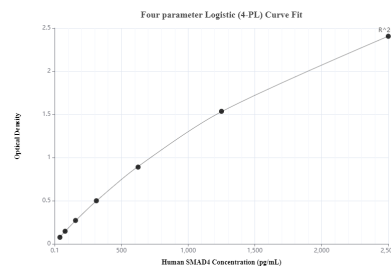
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using SMAD4 antibody (83169-5-RR, Clone: 240026G9) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 83169-5-PBS in a different storage buffer formulation.



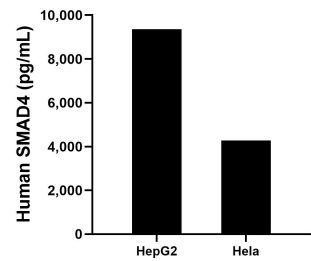
$1 \times 10^6$  HepG2 cells were intracellularly stained with 0.25 ug SMAD4 Recombinant antibody (83169-5-RR, Clone:240026G9) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set. This data was developed using the same antibody clone with 83169-5-PBS in a different storage buffer formulation.



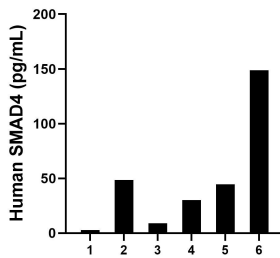
WB result of SMAD4 antibody (83169-5-RR; 1:6000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SMAD4 transfected HEK-293 cells. This data was developed using the same antibody clone with 83169-5-PBS in a different storage buffer formulation.



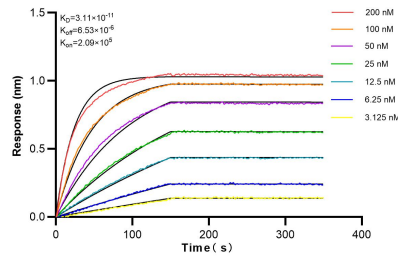
Sandwich ELISA standard curve of MP00267-4, Human SMAD4 Monoclonal Matched Antibody Pair - PBS only. 83169-5-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard AgO299. 83169-6-PBS was HRP conjugated as the detection antibody. Range: 39.1-2500 pg/mL.



The mean human SMAD4 concentration was determined to be 9,362.0 pg/mL in HepG2 cell extract based on a 6.0 mg/mL extract load and 4,272.2 pg/mL in HL-60 cell extract based on a 3 mg/mL extract load.



Serum of sixteen individual healthy human donors were measured. The human SMAD4 concentration of detected samples was determined to be 47.3 pg/mL with a range of ND - 148.8 pg/mL.



Biolayer interferometry (BLI) kinetic assays of 83169-5-RR against Human SMAD4 were performed. The affinity constant is below 1 pM.