

For Research Use Only

# SMAD3 Recombinant monoclonal antibody, PBS Only (Detector)

Catalog Number:87035-1-PBS



## Basic Information

<b>Catalog Number:</b> 87035-1-PBS	<b>GenBank Accession Number:</b> NM_005902	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug , Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 4088	<b>CloneNo.:</b> 251981H8
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P84022	
<b>Isotype:</b> IgG	<b>Full Name:</b> SMAD family member 3	
<b>Immunogen Catalog Number:</b> AG32623	<b>Calculated MW:</b> 48 kDa	
	<b>Observed MW:</b> 52 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, Sandwich ELISA, Indirect ELISA

**Species Specificity:**  
human, mouse, rat

## Product Information

87035-1-PBS targets SMAD3 as part of a matched antibody pair.

MP02853-2: 87035-4-PBS capture and 87035-1-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

SMAD3, also named as hMAD 3 or Mad3, is a 425 amino acid protein, which contains one MH1 domain and one MH2 domain. SMAD3 localizes in the nucleus and cytoplasm. SMAD3 plays an essential role in development and maintenance of self-tolerance and is a critical mediator of the TGFB signaling pathway. SMAD3 is involved in TGFB dependent regulation of steroidogenesis and in T-cell response to TGFB.

## Storage

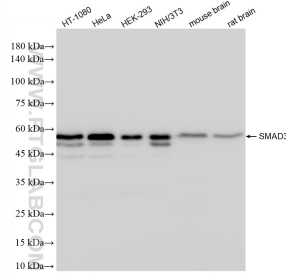
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS only, pH7.3

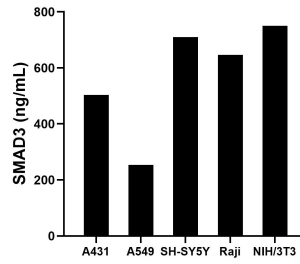
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)      E: proteintech@ptglab.com  
W: ptglab.com

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

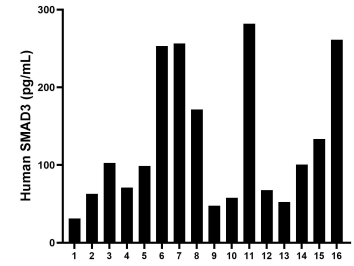
## Selected Validation Data



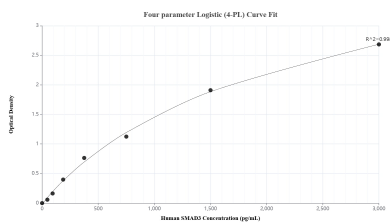
Various lysates were subjected to SDS PAGE followed by western blot with 87035-1-RR (SMAD3 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87035-1-PBS in a different storage buffer formulation.



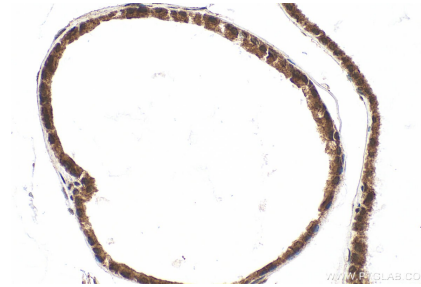
The mean SMAD3 concentration was determined to be 503.2 ng/mL in A431 cell extract based on a 1.2 mg/mL extract load, 253.4 ng/mL in A549 cell extract based on a 1.2 mg/mL extract load, 709.6 ng/mL in SH-SY5Y cell extract based on a 1.2 mg/mL extract load, 646.7 ng/mL in Raji cell extract based on a 1.2 mg/mL extract load and 750.4 ng/mL in NIH/3T3 cell extract based on a 1.2 mg/mL extract load.



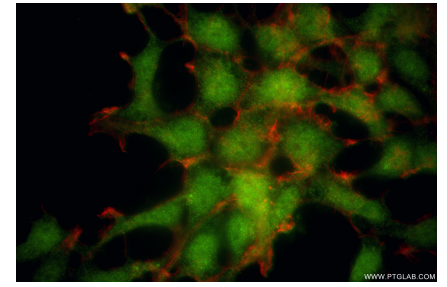
Serum of sixteen individual healthy human donors was measured. The SMAD3 concentration of detected samples was determined to be 128.2 pg/mL with a range of 31.3-281.8 pg/mL.



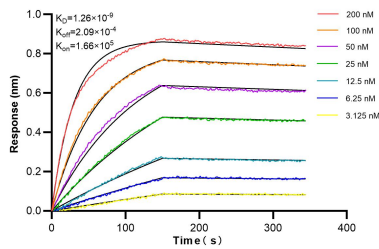
Sandwich ELISA standard curve of MP02853-2, Human SMAD3 Recombinant Matched Antibody Pair - PBS only. 87035-4-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag32623. 87035-1-PBS was HRP conjugated as the detection antibody. Range: 46.9-3000 pg/mL.



Immunohistochemical analysis of paraffin-embedded mouse prostate tissue slide using 87035-1-RR (SMAD3 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87035-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HEK-293 cells using SMAD3 antibody (87035-1-RR, Clone: 251981H8) at dilution of 1:1000 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 87035-1-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assays of 87035-1-RR against Human SMAD3 were performed. The affinity constant is 1.26 nM.