

For Research Use Only

# Mouse CD141/Thrombomodulin Recombinant antibody, PBS Only (Capture)

Catalog Number: 84412-3-PBS



## Basic Information

<b>Catalog Number:</b> 84412-3-PBS	<b>GenBank Accession Number:</b> NM_009378.3	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug , Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 21824	<b>CloneNo.:</b> 241730D4
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P15306	
<b>Isotype:</b> IgG	<b>Full Name:</b> thrombomodulin	
	<b>Calculated MW:</b> 62kDa	
	<b>Observed MW:</b> 105 kDa	

## Applications

**Tested Applications:**  
WB, IF/ICC, Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
mouse

## Product Information

84412-3-PBS targets CD141/Thrombomodulin as part of a matched antibody pair:

MP01300-1: 84412-3-PBS capture and 84412-2-PBS detection (validated in Cytometric bead array)

MP01300-2: 84412-3-PBS capture and 84412-1-PBS detection (validated in Cytometric bead array, 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

Thrombomodulin, also known as CD141, is an endothelial cell surface glycoprotein that forms a 1:1 complex with the coagulation factor thrombin and plays an important role as a natural anticoagulant. Thrombomodulin serves to convert thrombin from a procoagulant protein into the activator for protein C. Once converted to activated protein C (APC), this protein serves as a major anticoagulant in blood (PMID: 2827310). Thrombomodulin is also located in other cells (keratinocytes, osteoblasts, macrophages,...) where it might be involved in cell differentiation or inflammation (PMID: 9814688). In humans, thrombomodulin is encoded by the THBD gene. Mutations in this gene are a cause of thromboembolic disease, also known as inherited thrombophilia. Thrombomodulin is glycosylated and has an apparent molecular weight of 75 to 110 kDa (PMID: 1650405; 2827310).

## Storage

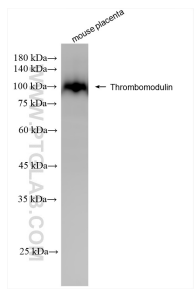
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

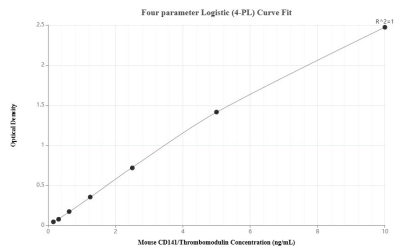
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

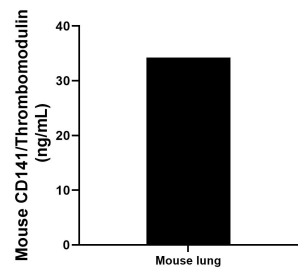
Selected Validation Data



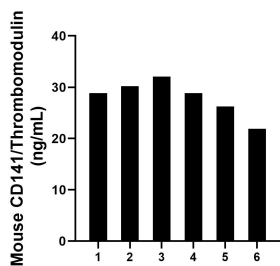
mouse placenta tissue was subjected to SDS PAGE followed by western blot with 84412-3-RR (CD141/Thrombomodulin antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 84412-3-PBS in a different storage buffer formulation.



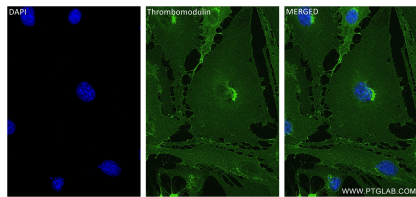
Sandwich ELISA standard curve of MP01300-2, Mouse CD141/Thrombomodulin Recombinant Matched Antibody Pair - PBS only. 84412-3-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Eg1139. 84412-1-PBS was HRP conjugated as the detection antibody. Range: 0.156-10 ng/mL



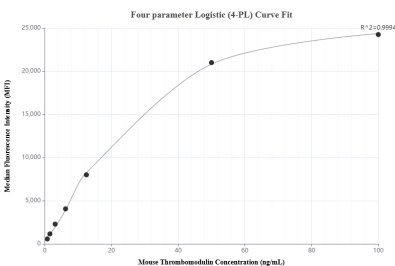
Mouse lung, cut into 1-2 mm pieces, was cultured for 4 days in 25-30 mL of RPMI supplemented with 10% fetal bovine serum. The cell culture supernate was removed, assayed for CD141/Thrombomodulin, and measured 34.22 ng/mL



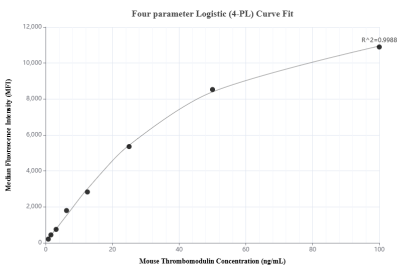
Serum of six mice was measured. The mouse CD141/Thrombomodulin concentration of detected samples was determined to be 28.01 ng/mL with a range of 21.90 - 32.07 ng/mL



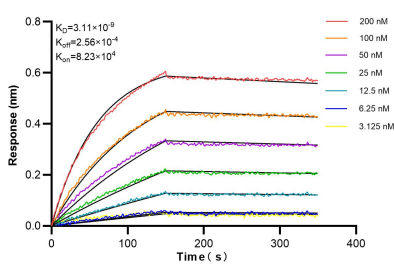
Immunofluorescent analysis of (4% PFA) fixed bEnd.3 cells using CD141/Thrombomodulin antibody (84412-3-RR, Clone: 241730D4) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 84412-3-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP01300-1, MOUSE CD141/Thrombomodulin Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 84412-3-PBS. Detection antibody: 84412-2-PBS. Standard: Eg1139. Range: 0.781-100 ng/mL



Cytometric bead array standard curve of MP01300-2, MOUSE CD141/Thrombomodulin Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 84412-3-PBS. Detection antibody: 84412-1-PBS. Standard: Eg1139. Range: 0.781-100 ng/mL



Biolayer interferometry (BLI) kinetic assays of 84412-3-RR against Mouse CD141/Thrombomodulin were performed. The affinity constant is 3.11 nM.