

For Research Use Only

# Piezo1 (extracellular domain) Recombinant antibody

Catalog Number: 82625-4-RR



## Basic Information

<b>Catalog Number:</b> 82625-4-RR	<b>GenBank Accession Number:</b> BC008073	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul, Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 9780	<b>CloneNo.:</b> 4B15
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q92508	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IHC 1:50-1:500 IF/ICC 1:125-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> family with sequence similarity 38, member A	
<b>Immunogen Catalog Number:</b> AG7791	<b>Calculated MW:</b> 286 kDa	
	<b>Observed MW:</b> 233-286 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> human, rat	<b>WB :</b> HeLa cells, HepG2 cells, SGC-7901 cells, hTERT-RPE1 cells
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IHC :</b> rat dorsal root ganglion tissue,
	<b>IF/ICC :</b> THP-1 cells,

## Background Information

Mechanotransduction, the conversion of mechanical force into biological signals, is a fundamental physiologic process of mammalian cells that influences many critical processes including embryonic development, tactile, pain, and auditory sensation, regulation of vascular tone, flow sensing in the kidney, and muscle and tendon stretch. FAM38A, also known as Piezo1, has recently been identified as a mechanotransduction protein that gets involved in mechanosensation and stretch-activated cation channel activation. Piezo1 also plays a key role in epithelial cell adhesion by maintaining integrin activation through R-Ras recruitment to the ER. Mutations in the gene encoding Piezo1 are associated with hereditary xerocytosis. Piezo1 also regulates extrusion to maintain homeostatic epithelial cell numbers. This antibody was raised against the extracellular domain of human Piezo1. (PMID: 20016066, 28416610)

## Storage

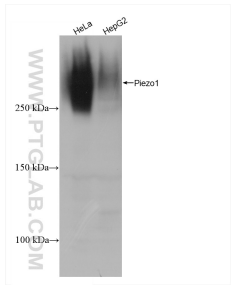
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

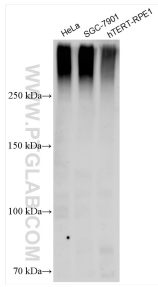
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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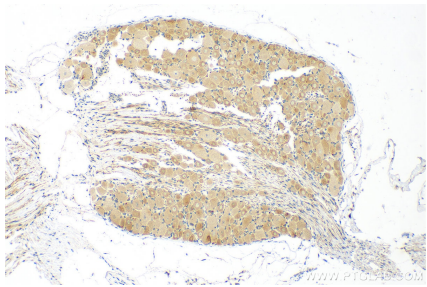
Selected Validation Data



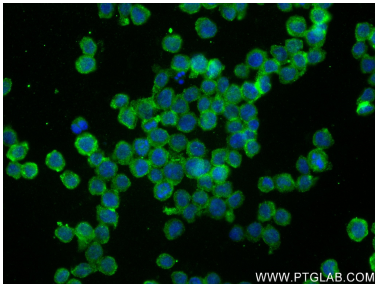
Various lysates were subjected to SDS PAGE followed by western blot with 82625-4-RR (Ag7791 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



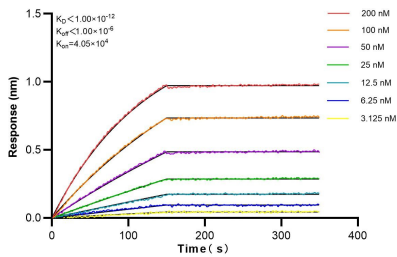
Various lysates were subjected to SDS PAGE followed by western blot with 82625-4-RR (Piezo1 (extracellular domain) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded rat dorsal root ganglion tissue slide using 82625-4-RR (Piezo1 (extracellular domain) antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed THP-1 cells using Piezo1 (extracellular domain) antibody (82625-4-RR, Clone: 4B15 ) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 82625-4-RR against Human Piezo1 (extracellular domain) were performed. The affinity constant is below 1 pM.