

For Research Use Only

Piezo1 (extracellular domain) Recombinant antibody

Catalog Number: 82625-4-RR



Basic Information

Catalog Number:

82625-4-RR

Concentration:

1000 ug/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG7791

GenBank Accession Number:

BC008073

GeneID (NCBI):

9780

UNIPROT ID:

Q92508

Full Name:

family with sequence similarity 38,
member A

Calculated MW:

286 kDa

Observed MW:

233-286 kDa

Purification Method:

Protein A purification

CloneNo.:

4B15

Recommended Dilutions:

WB 1:1000-1:4000

IHC 1:50-1:500

IF/ICC 1:125-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Species Specificity:

human, rat

**Note-IHC: suggested antigen retrieval with
TE buffer pH 9.0; (*) Alternatively, antigen
retrieval may be performed with citrate
buffer pH 6.0**

Positive Controls:

WB : HeLa cells, HepG2 cells, SGC-7901 cells, hTERT-
RPE1 cells

IHC : rat dorsal root ganglion tissue,

IF/ICC : 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

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

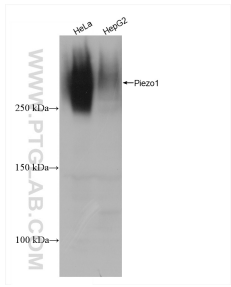
T: 4006900926

E: Proteintech-CN@ptglab.com

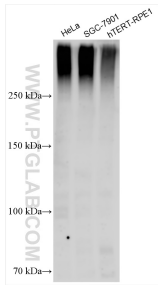
W: ptgcn.com

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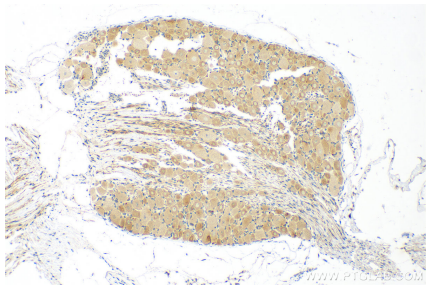
Selected Validation Data



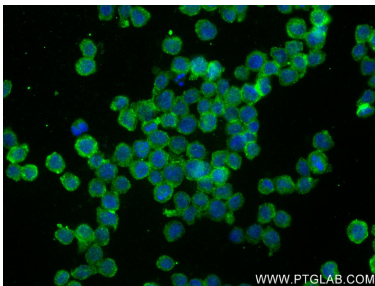
Various lysates were subjected to SDS PAGE followed by western blot with 82625-4-RR (Ag7791 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



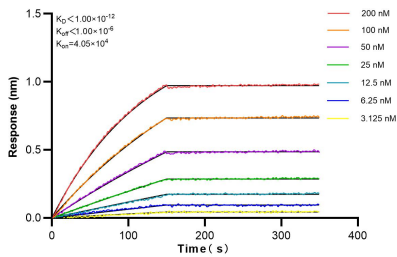
Various lysates were subjected to SDS PAGE followed by western blot with 82625-4-RR (Piezo1 (extracellular domain) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



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.