Piezo1 (extracellular domain) Polyclonal antibody

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Antibodies | ELISA kits | Proteins

Catalog Number:**15939-1-AP**

Featured Product   **192 Publications**

Basic Information

Catalog Number:
15939-1-AP

Size:
150ul , Concentration: 900 ug/ml by Nanodrop;

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:
Antigen affinity purification

Recommended Dilutions:
WB: 1:200-1:1000
IHC: 1:50-1:500
IF/ICC: 1:50-1:500

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Cited Applications:
WB, IHC, IF, CoIP

Species Specificity:
human

Cited Species:
human, mouse, rat, pig, canine, zebrafish

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, SGC-7901 cells, hTERT-RPE1 cells

IHC : human skin tissue, human skin cancer 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)

Notable Publications

Author	Pubmed ID	Journal	Application
Yang Zhang	34548087	Respir Res	WB,IF
Young-June Jin	34499618	J Clin Invest	WB
Julián Albarrán-Juárez	30194266	J Exp Med	WB

Storage

Storage:
Store at -20℃. 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
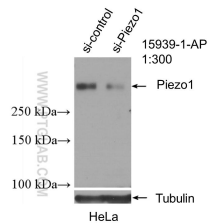
***** 20ul sizes contain 0.1% BSA**

Selected Validation Data

WB result of Piezo1 antibody (15939-1-AP; 1:300; incubated at room temperature for 1.5 hours) with sh-Control and sh-Piezo1 transfected HeLa cells.
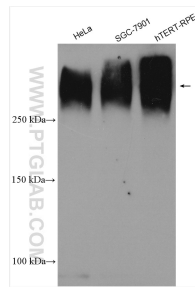

Various lysates were subjected to SDS PAGE followed by western blot with 15939-1-AP (Piezo1 (extracellular domain) antibody) at dilution of 1:500 and incubated at room temperature for 1.5 hours.
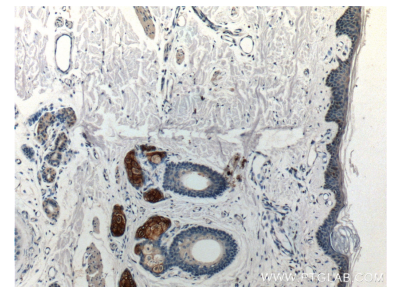

Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 15939-1-AP (Piezo1 antibody at dilution of 1:200 (under 10x lens).
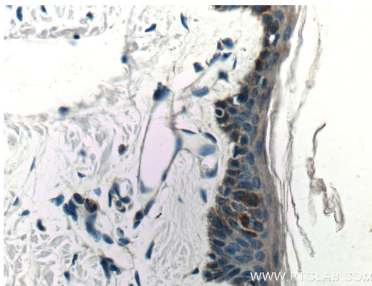

Immunohistochemical analysis of paraffin-embedded human skin tissue slide using 15939-1-AP (Piezo1 antibody at dilution of 1:200 (under 40x lens).
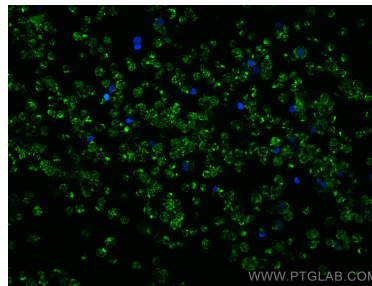
Immunofluorescent analysis of THP-1 cells using Piezo1 (extracellular domain) antibody (15939-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).
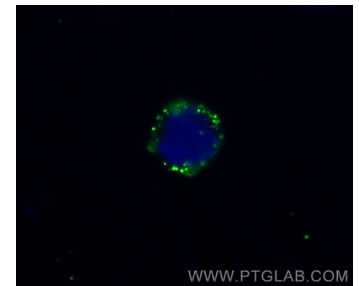
Immunofluorescent analysis of THP-1 cells using Piezo1 (extracellular domain) antibody (15939-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).
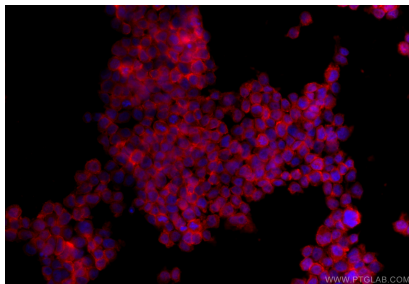
Immunofluorescent analysis of (4% PFA) fixed THP-1 cells using Piezo1 (extracellular domain) antibody (15939-1-AP) at dilution of 1:400 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4).