

Product Datasheet

PIEZO1 Antibody (2-10) NBP2-75617

Unit Size: 100 ul

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NBP2-75617**PIEZO1 Antibody (2-10)**

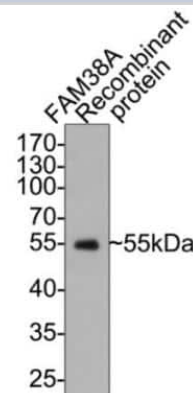
Product Information	
Unit Size	100 ul
Concentration	2 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	2-10
Preservative	0.05% Sodium Azide
Isotype	IgG2a
Purity	Protein A purified
Buffer	PBS (pH7.4), 0.2% BSA, 50% Glycerol
Target Molecular Weight	287 kDa

Product Description	
Host	Mouse
Gene ID	9780
Gene Symbol	PIEZO1
Species	Human, Mouse, Rat, Porcine
Reactivity Notes	Porcine reactivity reported from a verified customer review. Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any. Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-questions.
Immunogen	Recombinant protein within Human PIEZO1 aa 1275-1540 / 2521. (SwissProt: Q92508 Human)

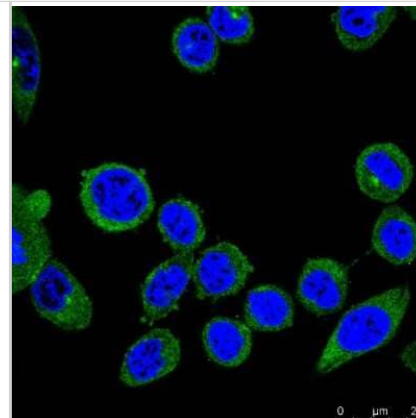
Product Application Details	
Applications	Western Blot, Electron Microscopy, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:2000, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 1:200-1:600, Electron Microscopy Reported in scientific literature (PMID:34489534)

Images

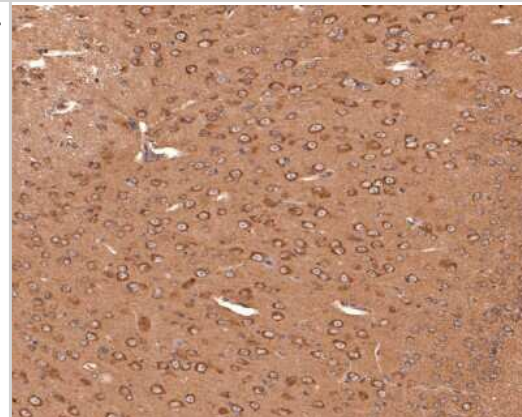
Western Blot: PIEZO1 Antibody (2-10) [NBP2-75617] - Analysis of FAM38A/PIEZO1 on recombinant protein with Mouse anti-FAM38A/PIEZO1 antibody at 1/500 dilution. Lysates/proteins at 50 ng/Lane. Exposure time: 1 minute; 10% SDS-PAGE gel. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody at 1:100,000 dilution was used for 1 hour at room temperature.



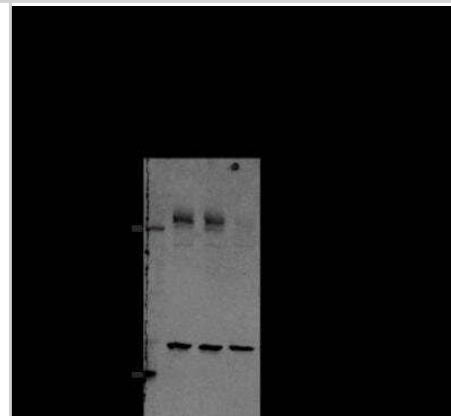
Immunocytochemistry/Immunofluorescence: PIEZO1 Antibody (2-10) [NBP2-75617] - Analysis of SiHa cells labeling FAM38A/PIEZO1 with Mouse anti-PIEZO1 antibody at 1/100 dilution. Cells were fixed in 4% paraformaldehyde for 30 minutes, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes, and then blocked with 2% BSA for 30 minutes at room temperature. Cells were then incubated with Mouse anti-PIEZO1 antibody at 1/100 dilution in 2% BSA overnight at 4 °C. Goat Anti-Mouse IgG H&L (iFluor(TM) 488) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.



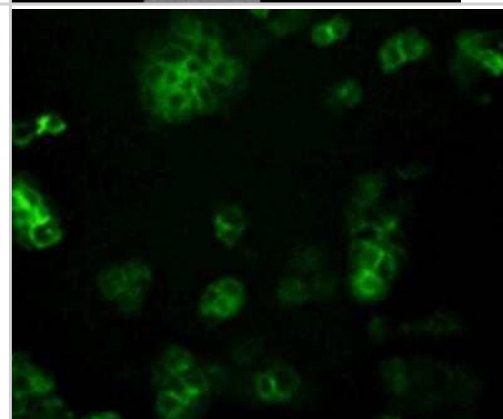
Immunohistochemistry-Paraffin: PIEZO1 Antibody (2-10) [NBP2-75617] - Analysis of paraffin-embedded mouse brain tissue with Mouse anti-FAM38A/PIEZO1 antibody at 1/200 dilution. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



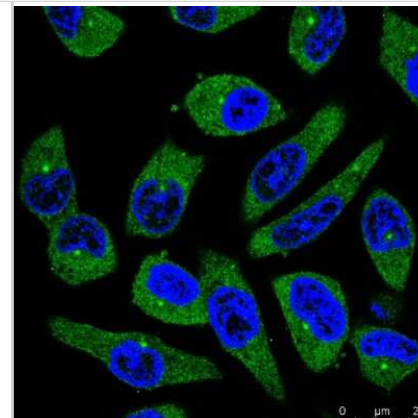
Western Blot: PIEZO1 Antibody (2-10) [NBP2-75617] - Porcine endocardial endothelium lysate. Control, mock transfected and Piezo1 siRNA transfected with alpha-actinin as loading control. WB image submitted by a verified customer review.



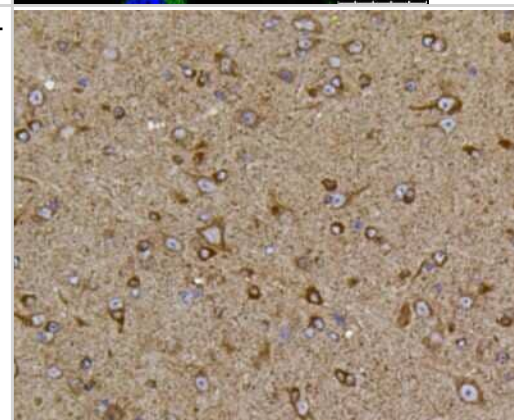
Immunocytochemistry/Immunofluorescence: PIEZO1 Antibody (2-10) [NBP2-75617] - ICC staining Protein PIEZO (green) in A431 cells. Cells were fixed in paraformaldehyde, permeabilized with 0.25% Triton X-100 in PBS.



Immunocytochemistry/Immunofluorescence: PIEZO1 Antibody (2-10) [NBP2-75617] - Analysis of Hela cells labeling FAM38A/PIEZO1 with Mouse anti-PIEZO1 antibody at 1/100 dilution. Cells were fixed in 4% paraformaldehyde for 30 minutes, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes, and then blocked with 2% BSA for 30 minutes at room temperature. Cells were then incubated with Mouse anti-FAM38A/PIEZO1 antibody at 1/100 dilution in 2% BSA overnight at 4 °C. Goat Anti-Mouse IgG H&L (iFluor(TM) 488) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.



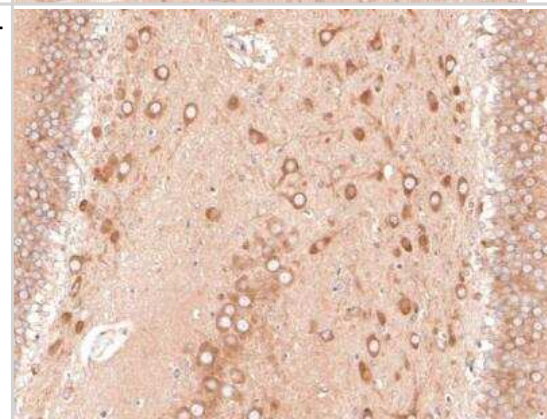
Immunohistochemistry-Paraffin: PIEZO1 Antibody (2-10) [NBP2-75617] - Analysis of paraffin-embedded mouse brain tissue using anti-Protein FAM38A antibody. Counter stained with hematoxylin.



Immunohistochemistry-Paraffin: PIEZO1 Antibody (2-10) [NBP2-75617] - Rat brain tissue with Mouse anti-FAM38A/PIEZO1 antibody at 1/600 dilution. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH2O and PBS, and then probed with the primary antibody at 1/600 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



Immunohistochemistry-Paraffin: PIEZO1 Antibody (2-10) [NBP2-75617] - Rat hippocampus tissue with Mouse anti-FAM38A/PIEZO1 antibody at 1/600 dilution. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH2O and PBS, and then probed with the primary antibody at 1/600 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



Publications

Zhang ZM, Yu P, Zhou K et al. Hierarchically Porous Implants Orchestrating a Physiological Viscoelastic and Piezoelectric Microenvironment for Bone Regeneration *Advanced healthcare materials* 2023-07-27 [PMID: 37498795]

Jinyuan Vero Li, Charles D Cox, Boris Martinac The anchor domain is critical for Piezo1 channel mechanosensitivity *Channels* 2021-05-11 [PMID: 33975519]

Choon Leng So, Mélanie Robitaille, Francisco Sadras, Michael H. McCullough, Michael J. G. Milevskiy, Geoffrey J. Goodhill, Sarah J. Roberts-Thomson, Gregory R. Monteith Cellular geometry and epithelial-mesenchymal plasticity intersect with PIEZO1 in breast cancer cells *Communications Biology* 2024-04-17 [PMID: 38632473]

Zhou Z, Li J, Martinac B, Cox C Loss-of-Function Piezo1 Mutations Display Altered Stability Driven by Ubiquitination and Proteasomal Degradation *Frontiers in Pharmacology* 2021-11-19 [PMID: 34867393]

Kelley B, Zhang EY, Khalfaoui L et al. Piezo channels in stretch effects on developing human airway smooth muscle *American journal of physiology. Lung cellular and molecular physiology* 2023-09-12 [PMID: 37697925]

Savadipour A, Nims RJ, Rashidi N et al. Membrane stretch as the mechanism of activation of PIEZO1 ion channels in chondrocytes *Proceedings of the National Academy of Sciences of the United States of America* 2023-07-25 [PMID: 37459546]

Knoblauch SV, Desai SH, Dombroski JA et al. Chemical Activation and Mechanical Sensitization of Piezo1 Enhance TRAIL-Mediated Apoptosis in Glioblastoma Cells *ACS omega* 2023-05-16 [PMID: 37214705]

Luu N, Bajpai A, Li R et al. Aging-associated Decline in Vascular Smooth Muscle Cell Mechanosensation is Mediated by Piezo1 Channel *bioRxiv : the preprint server for biology* 2023-04-29 [PMID: 37163041]

Chen S, Li Z, Chen D et al. Piezo1-mediated mechanotransduction promotes entheseal pathological new bone formation in ankylosing spondylitis *Annals of the rheumatic diseases* 2022-12-21 [PMID: 36543525]

Yao M, Tijore A, Cheng D et al. Force- and cell state-dependent recruitment of Piezo1 drives focal adhesion dynamics and calcium entry *Science advances* 2022-11-11 [PMID: 36351022] (ICC/IF, Human)

Sforna L, Michelucci A, Morena F et al. Piezo1 controls cell volume and migration by modulating swelling-activated chloride current through Ca²⁺ influx *Journal of cellular physiology* 2021-12-15 [PMID: 34913176]

Li JV, Ng CA, Cheng D et al. Modified N-linked glycosylation status predicts trafficking defective human Piezo1 channel mutations *Communications biology* 2021-09-06 [PMID: 34489534] (EM, WB, Human)

More publications at <http://www.novusbio.com/NBP2-75617>





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Products Related to NBP2-75617

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)
NBP1-78537PEP	PIEZO1 Antibody Blocking Peptide

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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