



PIEZO1 Rabbit mAb

Catalog No	YP-rAb-17031
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IF,ELISA
Gene Name	PIEZO1 FAM38A KIAA0233
Protein Name	Piezo-type mechanosensitive ion channel component 1 (Membrane protein induced by beta-amyloid treatment) (Mib) (Protein FAM38A)
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:500-1:2000; IF 1:200-1:1000; ELISA 1:5000-1:20000;
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	PIEZO1;Piezo-type mechanosensitive ion channel component 1 (Membrane protein induced by beta-amyloid treatment) (Mib) (Protein FAM38A);Piezo-type mechanosensitive ion channel component 1 ; Membrane protein induced by beta-amyloid treatment ; Mib ; Protein FAM38A ;PIEZO1 FAM38A KIAA0233
Observed Band	287kD
Calculated Molecular Weight	287kD
Cell Pathway	Endoplasmic reticulum membrane ; Multi-pass membrane protein. Endoplasmic reticulum-Golgi intermediate compartment membrane . Cell membrane ; Multi-pass membrane protein . Cell projection, lamellipodium membrane . Cell membrane ; Multi-pass membrane protein. In erythrocytes, located in the plasma membrane (PubMed:22529292, PubMed:23479567). Accumulates at the leading apical lamellipodia of endothelial cells in response to shear stress (PubMed:25119035). Colocalizes with F-actin and MYH9 at the actomyosin cortex in myoblasts. .
Tissue Specificity	Expressed in numerous tissues. In normal brain, expressed exclusively in neurons, not in astrocytes. In Alzheimer disease brains, expressed in about half of the activated astrocytes located around classical senile plaques. In Parkinson disease substantia nigra, not detected in melanin-containing neurons nor in activated astrocytes. Expressed in erythrocytes (at protein level). Expressed in myoblasts (at protein level).
Function	Pore-forming subunit of a mechanosensitive non-specific cation channel . Generates currents characterized by a linear current-voltage relationship that are



sensitive to ruthenium red and gadolinium. Plays a key role in epithelial cell adhesion by maintaining integrin activation through R-Ras recruitment to the ER, most probably in its activated state, and subsequent stimulation of calpain signaling. In the kidney, may contribute to the detection of intraluminal pressure changes and to urine flow sensing. Acts as shear-stress sensor that promotes endothelial cell organization and alignment in the direction of blood flow through calpain activation. Plays a key role in blood vessel formation and vascular structure in both development and adult physiology (By similarity). Acts as sensor of phosphatidylserine (PS) flipping at the plasma membrane and governs morphogenesis of muscle cells. In myoblasts, flippase-mediated PS enrichment at the inner leaflet of plasma membrane triggers channel activation and Ca^{2+} influx followed by Rho GTPases signal transduction, leading to assembly of cortical actomyosin fibers and myotube formation.

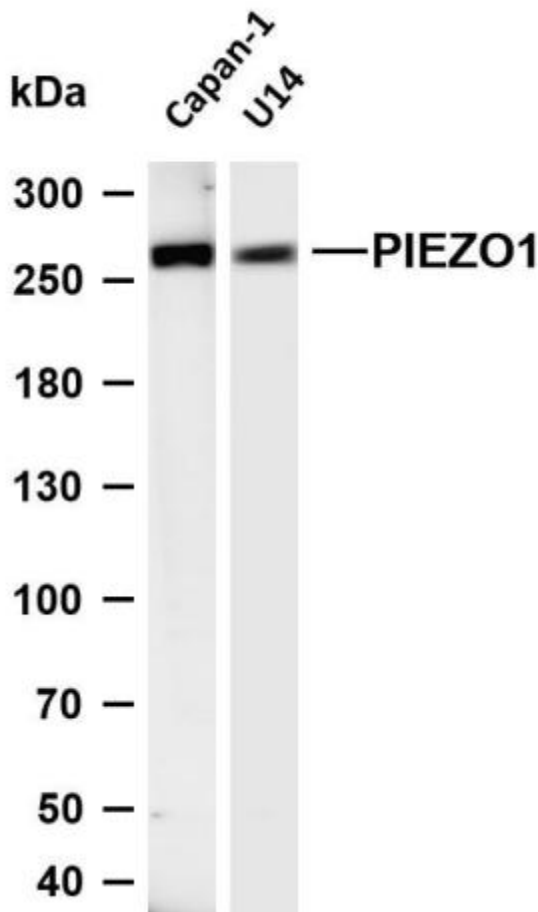
Background

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-PIEZO1 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Capan-1 Lane 2: U14 Predicted band size: 287kDa Observed band size: 287kDa

