PIEZ1 mouse mAb

Catalog No	BYmab-18283
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	PIEZO1 FAM38A KIAA0233
Protein Name	Piezo-type mechanosensitive ion channel component 1 (Membrane protein induced by beta-amyloid treatment) (Mib) (Protein FAM38A)
Immunogen	Synthesized peptide derived from human C-ternal PIEZ1
Specificity	This antibody detects endogenous levels of PIEZ1 at Human, Mouse,Rat
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Piezo-type mechanosensitive ion channel component 1 (Membrane protein induced by beta-amyloid treatment) (Mib) (Protein FAM38A)
Observed Band	277kD
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. I
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.

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