

FAM38A Polyclonal Antibody Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP55728

Specification

FAM38A Polyclonal Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC-P, IHC-F, IF, ICC, E <u>092508</u> Rat, Dog, Bovine Rabbit Polyclonal 286790

FAM38A Polyclonal Antibody - Additional Information

Gene ID 9780

Other Names Piezo-type mechanosensitive ion channel component 1, Membrane protein induced by beta-amyloid treatment, Mib, Protein FAM38A, PIEZO1, FAM38A, KIAA0233

Dilution IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format 0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

FAM38A Polyclonal Antibody - Protein Information

Name PIEZO1 (HGNC:28993)

Synonyms FAM38A, KIAA0233

Function

Pore-forming subunit of the mechanosensitive non-specific cation Piezo channel required for rapidly adapting mechanically activated (MA) currents and has a key role in sensing touch and tactile pain (PubMed:23479567, PubMed:23479567, PubMed:23695678, PubMed:25955826, PubMed:25955826, PubMed:37590348). Piezo channels are homotrimeric three-blade propeller-shaped



structures that utilize a cap-motion and plug-and- latch mechanism to gate their ion-conducting pathways (PubMed:<a href="http://www.uniprot.org/citations/37590348"

target="_blank">37590348). Generates currents characterized by a linear current-voltage relationship that are sensitive to ruthenium red and gadolinium (By similarity). Conductance to monovalent alkali ions is highest for K(+), intermediate for Na(+) and lowest for Li(+) (PubMed:25955826). Divalent ions except for Mn(2+) permeate the channel but more slowly than the monovalent ions and they also reduce K(+) currents (PubMed:25955826" target="_blank">25955826" target="_blank">25955826). Divalent ions except for Mn(2+) permeate the channel but more slowly than the monovalent ions and they also reduce K(+) currents (PubMed:25955826). 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 (PubMed:20016066). In inner ear hair cells, PIEZO1/2 subunits may constitute part of the mechanotransducer (MET) non-selective cation channel complex where they may act as pore- forming ion-conducting component in the complex (By similarity). In the kidney, may contribute to the detection of intraluminal pressure changes and to urine flow sensing (By similarity). Acts as a shear- stress sensor that promotes endothelial cell organization and alignment in the direction of blood flow through calpain activation (PubMed:25119035). Plays a key role in blood vessel formation and vascular structure in both development and adult physiology (By similarity). Acts as a sensor of phosphatidylserine (PS) flipping at the plasma membrane and governs morphogenesis of muscle cells (By similarity). In myoblasts, flippase-mediated PS enrichment at the inner leaflet of plasma membrane triggers channel activation and Ca2+ influx followed by Rho GTPases signal transduction, leading to assembly of cortical actomyosin fibers and myotube formation (PubMed:29799007).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein

{ECO:0000250|UniProtKB:E2JF22}. Endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000250|UniProtKB:Q0KL00}. Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:E2JF22}. Cell projection, lamellipodium membrane Note=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. {ECO:0000250|UniProtKB:E2JF22, ECO:0000269|PubMed:22529292, ECO:0000269|PubMed:23479567, ECO:0000269|PubMed:25119035}

Tissue Location

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)

FAM38A Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- <u>Blocking Peptides</u>
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety



• <u>Cell Culture</u> FAM38A Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FAM38A) Polyclonal Antibody, Unconjugated (bs-14991R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FAM38A) Polyclonal Antibody, Unconjugated (bs-14991R) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Rabbit IgG antibody (bs-0295G-cy3) for 90 minutes, and DAPI for nuclei staining.