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FAM38B Antibody-(C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16313b

Product Information

Application	WB, E
Primary Accession	Q9H5I5
Other Accession	Q8CD54, NP_071351.2
Reactivity	Human, Mouse, Rat
Predicted	Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35726
Calculated MW	318064
Antigen Region	2575-2604

Additional Information

Gene ID	63895
Other Names	Piezo-type mechanosensitive ion channel component 2, Protein FAM38B, PIEZO2, C18orf30, C18orf58, FAM38B
Target/Specificity	This FAM38B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2575-2604 amino acids of human FAM38B.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FAM38B Antibody-(C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PIEZO2 (HGNC:26270)
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: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:37590348). Expressed in sensory neurons, is essential for diverse physiological processes, including respiratory control, systemic metabolism, urinary function, and proprioception (By similarity). Mediates airway stretch sensing, enabling efficient respiration at birth and maintaining normal breathing in adults (By similarity). It regulates brown and beige adipose tissue morphology and function, preventing systemic hypermetabolism (By similarity). In the lower urinary tract, acts as a sensor in both the bladder urothelium and innervating sensory neurons being required for bladder-stretch sensing and urethral micturition reflexes, ensuring proper urinary function (PubMed:33057202). Additionally, PIEZO2 serves as the principal mechanotransducer in proprioceptors, facilitating proprioception and coordinated body movements (By similarity). 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). Required for Merkel-cell mechanotransduction (By similarity). Plays a major role in light-touch mechanosensation (By similarity). In kidney, during blood volume challenges, regulates calcium dynamics and maintains renin production, thereby serving as an essential regulator of the renin-angiotensin-aldosterone system (RAAS) and systemic blood volume control (By similarity).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q8CD54}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q8CD54}

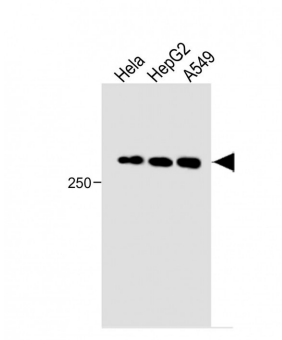
Background

Piezos are large transmembrane proteins conserved among various species, all having between 24 and 36 predicted transmembrane domains. 'Piezo' comes from the Greek 'piesi,' meaning 'pressure.' The PIEZO2 protein has a role in rapidly adapting mechanically activated (MA) currents in somatosensory neurons (Coste et al., 2010 [PubMed 20813920]).

References

Coste, B., et al. Science 330(6000):55-60(2010)
Brandenberger, R., et al. Nat. Biotechnol. 22(6):707-716(2004)

Images



All lanes : Anti-FAM38B Antibody-(C-term) at 1:500 dilution Lane 1: Hela whole cell lysate Lane 2: HepG2 whole cell lysate Lane 3: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Observed band size : 318kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Linoleic acid improves PIEZO2 dysfunction in a mouse model of Angelman Syndrome
- The mechanosensitive Piezo1 channel mediates heart mechano-chemo transduction

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.