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CALHM1 Rabbit pAb

Catalog # AP98752

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q8IU99
Other Accession	Q8IU99
Predicted	Rat, Human, Mouse, Rabbit, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38264
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CALHM1/FAM26C
Epitope Specificity	161-260/346
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the FAM26 family.
SUBUNIT	Homooligomer; homomultimerized to form dimeric and possibly tetrameric structures.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a calcium channel that plays a role in processing of amyloid-beta precursor protein. A polymorphism at this locus has been reported to be associated with susceptibility to late-onset Alzheimer's disease in some populations, but the pathogenicity of this polymorphism is unclear.[provided by RefSeq, Mar 2010].

Additional Information

Gene ID	255022
Other Names	FAM26C; EG546729; RGD1564891; CAHM1_HUMAN; CALHM1; Protein FAM26C; calcium homeostasis modulator 1; family with sequence similarity 26, member C
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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.

Protein Information

Name	CALHM1 {ECO:0000303|PubMed:18585350, ECO:0000312|HGNC:HGNC:23494}
Function	Pore-forming subunit of gustatory voltage-gated ion channels required for sensory perception of sweet, bitter and umami tastes (By similarity). With CALHM3 forms a fast-activating voltage-gated ATP- release channel in type II taste bud cells, ATP acting as a neurotransmitter to activate afferent neural gustatory pathways (By similarity) (PubMed:23467090). Acts both as a voltage-gated and calcium-activated ion channel: mediates neuronal excitability in response to membrane depolarization and low extracellular Ca(2+) concentration (PubMed:22711817, PubMed:23300080). Has poor ion selectivity and forms a wide pore (around 14 Angstroms) that mediates permeation of small ions including Ca(2+), Na(+), K(+) and Cl(-), as well as larger ions such as ATP(4-) (PubMed:22711817, PubMed:23300080, PubMed:32832629, PubMed:37380652). Mediates Ca(2+) influx and downstream activation of the ERK1 and ERK2 cascade in neurons (PubMed:23345406). Triggers endoplasmic reticulum stress by reducing the Ca(2+) content of the endoplasmic reticulum (PubMed:21574960). May indirectly control amyloid precursor protein (APP) proteolysis and aggregated amyloid-beta (Abeta) peptides levels in a Ca(2+)-dependent manner (PubMed:18585350).
Cellular Location	Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:D3Z291}. Note=Colocalizes with HSPA5 at the endoplasmic reticulum (PubMed:18585350). Localizes to the basolateral membrane of epithelial cells including taste cells (By similarity) {ECO:0000250|UniProtKB:D3Z291, ECO:0000269|PubMed:18585350}
Tissue Location	Predominantly expressed in adult brain. Detected also in retinoic acid-differentiated SH-SY5Y cells. Specifically expressed in circumvallate taste bud cells

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