

CALHM1 Polyclonal Antibody
Catalog # AP63538**Specification**

CALHM1 Polyclonal Antibody - Product Information

Application	WB, IHC-P
Primary Accession	Q8IU99
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal

CALHM1 Polyclonal Antibody - Additional Information**Gene ID** 255022**Other Names**

Calcium homeostasis modulator protein 1; Protein FAM26C

Dilution

WB~~WB: 1:500-1000 IHC: 1:200-500

IHC-P~~N/A

Format

PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.

Storage Conditions

-20°C

CALHM1 Polyclonal Antibody - 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

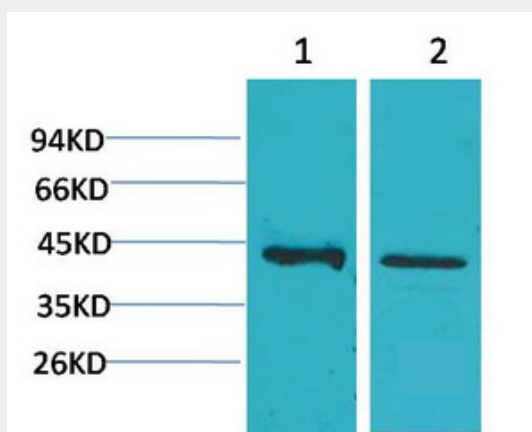
Predominantly expressed in adult brain. Detected also in retinoic acid-differentiated SH-SY5Y cells. Specifically expressed in circumvallate taste bud cells

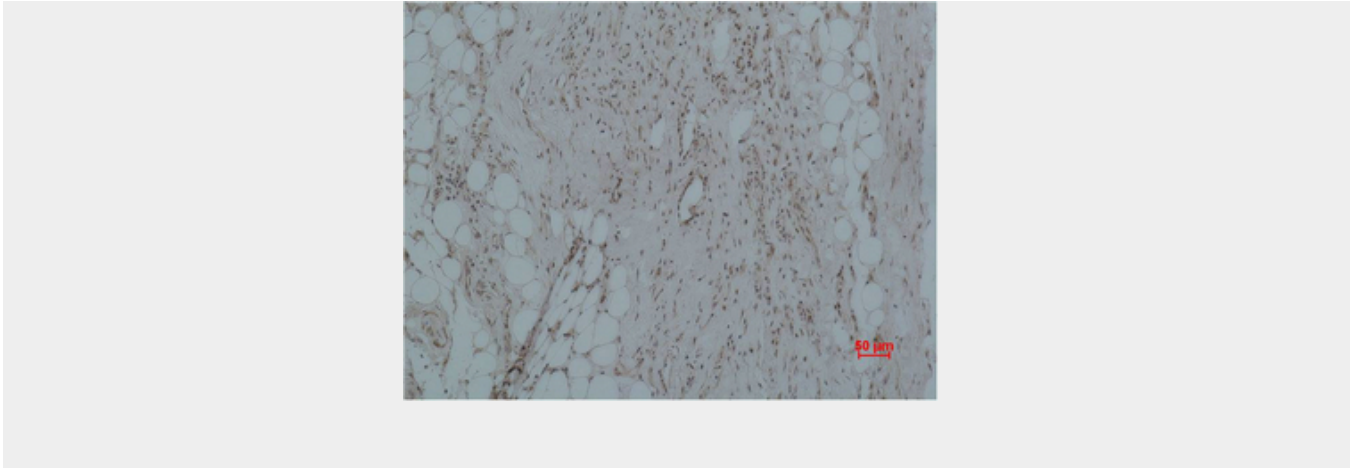
CALHM1 Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CALHM1 Polyclonal Antibody - Images





CALHM1 Polyclonal Antibody - Background

Pore-forming subunit of a voltage-gated ion channel required for sensory perception of sweet, bitter and umami tastes. Specifically present in type II taste bud cells, where it plays a central role in sweet, bitter and umami taste perception by inducing ATP release from the cell, ATP acting as a neurotransmitter to activate afferent neural gustatory pathways. Acts both as a voltage-gated and calcium-activated ion channel: mediates neuronal excitability in response to changes in extracellular Ca^{2+} concentration. Has poor ion selectivity and forms a wide pore (around 14 Angstroms) that mediates permeation of Ca^{2+} , Na^{+} and K^{+} , as well as permeation of monovalent anions. Acts as an activator of the ERK1 and ERK2 cascade. Triggers endoplasmic reticulum stress by reducing the calcium content of the endoplasmic reticulum. May indirectly control amyloid precursor protein (APP) proteolysis and aggregated amyloid-beta (A β) peptides levels in a Ca^{2+} dependent manner.