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Inspiration for Life Science

MONOCLONAL ANTIBODY

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Catalog No. FKW-M01

Anti CALHM1 (Clone : 8F1)

BACKGROUND

The calcium homeostasis regulator (CALHM) gene family encodes pore-forming subunits with four transmembrane domains that form large-pore voltage-gated channels. CALHM1, a member of this family, was identified during research into genes associated with late-onset Alzheimer's disease, and polymorphisms in the human CALHM1 gene have been reported to correlate with an increased risk of Alzheimer's disease. Beyond its role in Alzheimer's pathogenesis, a subset of taste receptor cells, specifically Type II taste bud cells, express CALHM1 and CALHM3, which together form a voltage-gated channel. This channel plays an essential role in releasing ATP as a neurotransmitter at the synapses with afferent nerve fibers.

Product type	Primary antibody
Immunogen	Cys-PRKEVATYFSKV (Mouse CALHM1, Pro337-Val348)
Rased in	Rat
Clone number	8F1
Isotype	IgG2a,κ
Source	Culture supernatant
Purification	Affinity purified by Protein G
Buffer	Phosphate buffered saline containing 0.1 % NaN_3 as a preservative.
Concentration	1 mg/mL
Volume	100 uL
Label	Unlabeled
Specificity	Mouse CALHM1
Reactivity	human, mouse, porcine. Other species are not tested.
Storage	Store at -20 °C.

Application notes	・Western blotting :1/1,000 (1 ug/mL).
Recommended dilutions	・Immunohistochemistry :1/1,000 (1 ug/mL). Optimal dilutions/concentrations should be determined by the end user.
References	・Ikuta R. Kakinohana Y., Hamada S.(2024) Ultrastructural localization of calcium homeostasis modulator 1 in mouse taste buds. Chemical Senses 49, bjae019. PMID: 38761122.

ANTIBODY CHARACTERIZATION

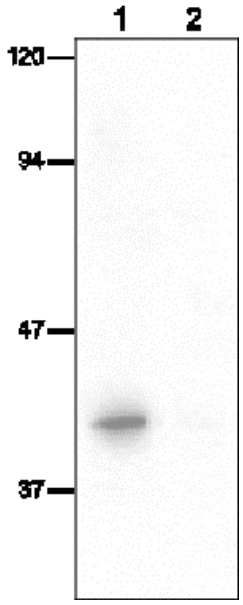

Fig.1 Immunoblot analysis using anti-CALHM1 antibody (8F1)

Lane 1: NIH3T3 cells transfected with CALHM1 cDNA inserted in pcDNA3.1 vector, whole cell lysate. Lane 2: NIH3T3 cells transfected with pcDNA3.1 vector only, whole cell lysate.
Predicted band size: 38 kDa.

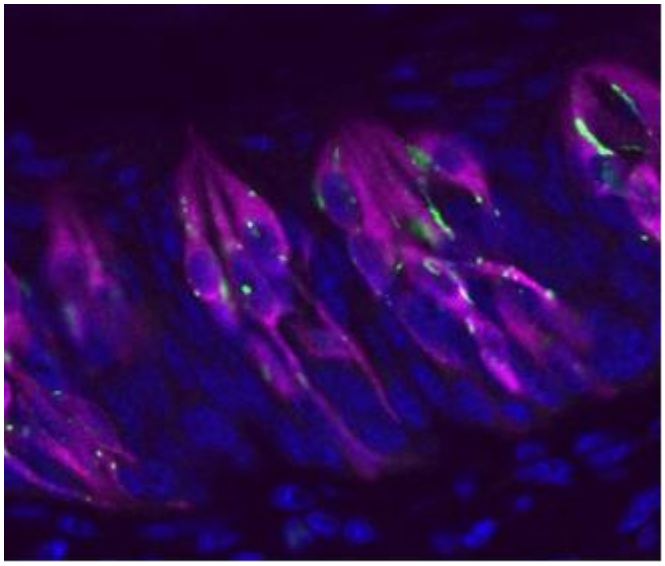

Fig.2 IHC staining with anti-CALHM1 antibody (8F1)

Immunohistochemical analysis of adult mouse taste bud tissue labeling CALHM1 (green) with 8F1 and phospholipase C b2 (magenta), a marker of type II taste bud cells. Blue: Nuclei stained with DAPI. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (10 mmol/L, pH 7) for 20 min at 85 °C.

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