

MONOCLONAL ANTIBODY

For research use only, Not for diagnostic use.

**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.

<b>Product type</b>	Primary antibody
<b>Immunogen</b>	Cys-PRKEVATYFSKV (Mouse CALHM1, Pro337-Val348)
<b>Raised in</b>	Rat
<b>Clone number</b>	8F1
<b>Isotype</b>	IgG2a,k
<b>Source</b>	Culture supernatant
<b>Purification</b>	Affinity purified by Protein G
<b>Buffer</b>	Phosphate buffered saline containing 0.1 % NaN <sub>3</sub> as a preservative.
<b>Concentration</b>	1 mg/mL
<b>Volume</b>	100 uL
<b>Label</b>	Unlabeled
<b>Specificity</b>	Mouse CALHM1
<b>Reactivity</b>	human, mouse, porcine. Other species are not tested.
<b>Storage</b>	Store at -20 °C.

<b>Application notes</b>	• Western blotting :1/1,000 (1 ug/mL).
<b>Recommended dilutions</b>	• Immunohistochemistry :1/1,000 (1 ug/mL).

Optimal dilutions/concentrations should be determined by the end user.

<b>References</b>	• Ikuta R. Kakinohana Y., Hamada S.(2024) Ultrastructural localization of calcium homeostasis modulator 1 in mouse taste buds. Chemical Senses 49, bjae019. PMID: 38761122.
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## ANTIBODY CHARACTERIZATION

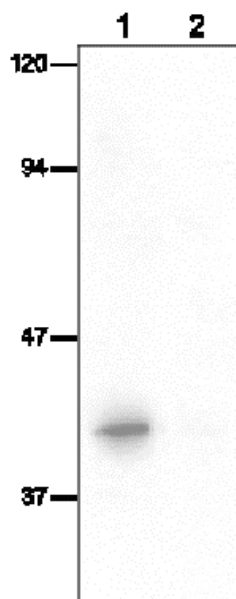


Fig.1 Immunoblot analysis using anti-CALHM1 antibody (8F1)

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.

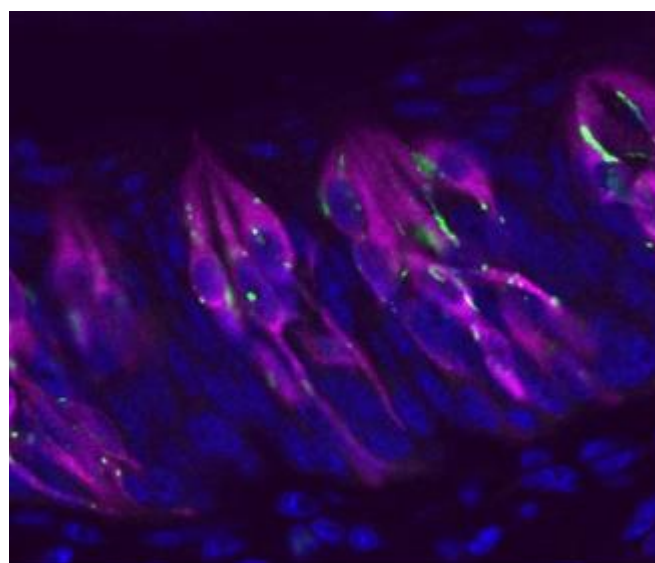


Fig.2 IHC staining with anti-CALHM1 antibody (8F1)

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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