

## Product datasheet for MC215147

### Calhm1 (NM\_001081271) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calhm1 (NM_001081271) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Calhm1
Synonyms:	EG546729
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC215147 representing NM_001081271 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGATAAGTTTCGGATGATCTTCCAGTCTTGCAATCCAACCAAGAGTCCTTCATGAATGGCATCTGTG  
 GCATCATGGCGCTGGCCAGTGCGCAGATGTATTCTGCCTTGACTTCAACTGCCCTGCTTACCCGGCTA  
 CAACGTGGTCTACAGCCTGGGCATACTGCTGACGCCTCCCCTGGTCTTCTGCTTGGTCTGGTCATG  
 AACAAACATATCCATGCTAGCTGAAGAGTGGAAGCGCCCCGCAGGTCGCCGGCCAAGGACCCAGCTG  
 TTCTACGCTACATGTTCTGTTCCATGGCCAGAGAGCTCTCATCGCCCCTGTCGTCTGGGTGGCTGTCAC  
 ACTGCTGGATGGCAAGTGCTTTCTGTGCCTTCTGCACAGCTGTGCCGTGGCCACACTAGGCAATGGC  
 AGCCTGGTGCCGGGCTGCCTGCTCCAGAACTTGCTCGCCTACTGGCTCGGGTACCCTGCCCTGAGATCT  
 ATGATGGGAAGTGGCTGCTAGCCCGAGAGGTGGCCGTGCGGTATTTGCGCTGCATCTCTCAGGCACTGGG  
 TTGGTCTTCTGCTGCTGACACATTACTAGCGTTCTGTTGACGCTCTGTGCGTCCCTGCTTACCGCAG  
 GTCGCCTTTCTCAAGAGCAAGTACTGGTCCCACTACATTGACATTGAGCGCAAGCTTTCGATGAGACAT  
 GCACAGAGCATGCCAAAGCCTTTGCTAAGGTATGTATCCAGCAGTTCTTTGAAGCCATGAACCATGACCT  
 GGAAGTGGGTCTACCCACGGAGTACTGGCCACGGCCACAGCCACAGCCACAGAGGCTGTCCAA  
 AGTCCCTCGGACAGGACAGAAGAAGAGAGGGAGAAGTTGCGTGGCATCACTGACCAAGGCACCATGAATA  
 GGCTACTCACAAGCTGGCACAATGCAAAACCACCTGAGGCTGGGCCAGGAGGCACCACTGATGAGCAA  
 CGGCTGGGCTGGGGCGAGCCCCGGCCTCCACGAAGGAAGTGCCACCTACTTCAGCAAAGTGT**GA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: [https://cdn.origene.com/chromatograms/ja2103\\_e11.zip](https://cdn.origene.com/chromatograms/ja2103_e11.zip)



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_001081271
<b>Insert Size:</b>	1047 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<u>NM_001081271.1, NP_001074740.1</u>
<b>RefSeq Size:</b>	1047 bp
<b>RefSeq ORF:</b>	1047 bp
<b>Locus ID:</b>	546729
<b>UniProt ID:</b>	<u>D3Z291</u>
<b>Cytogenetics:</b>	19 C3

**Gene Summary:**

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  $\text{Ca}^{2+}$  concentration. Has poor ion selectivity and forms a wide pore (around 14 Angstroms) that mediates permeation of  $\text{Ca}^{2+}$ ,  $\text{Na}^{+}$  and  $\text{K}^{+}$ , 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 $\beta$ ) peptides levels in a  $\text{Ca}^{2+}$  dependent manner.[UniProtKB/Swiss-Prot Function]