

## Product datasheet for **TA328697**

### CALHM1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)EAMNHDLELGHTHG, corresponding to amino acid residues 252-265 of human calcium homeostasis modulator protein 1. Intracellular, C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	calcium homeostasis modulator 1
Database Link:	<a href="#">NP_001001412</a> <a href="#">Entrez Gene 499367 Rat</a> <a href="#">Entrez Gene 546729 Mouse</a> <a href="#">Entrez Gene 255022 Human</a> <a href="#">Q8IU99</a>



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**Background:**

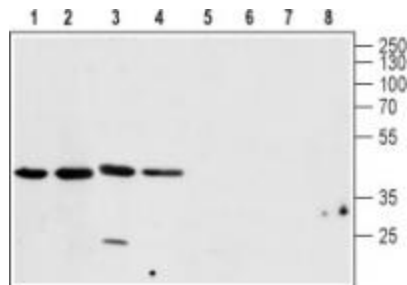
A misbalance in Ca<sup>2+</sup> homeostasis seems to be related to the development of Alzheimer's disease (AD). Indeed Neuronal Ca<sup>2+</sup> balance may affect the levels of proteins associated with AD, such as amyloid-beta (Ab) and tau. Calcium homeostasis modulator 1 (CALHM1) is a cerebral Ca<sup>2+</sup> channel component responsible for controlling intracellular Ca<sup>2+</sup> levels and Ab metabolism. CALHM1 is a three transmembrane glycoprotein, mostly localized to the endoplasmic reticulum (ER) although it can be detected at the plasma membrane. A functional channel is formed by multiple subunits which has some structural similarities to the NMDA receptor. It is expressed in all brain regions. In cultured cells, overexpression of CALHM1 increases intracellular Ca<sup>2+</sup> levels and reduces Ab accumulation, thereby reinforcing its implication in the development of AD. Indeed, a polymorphism in the gene was found to affect the onset of AD.

**Synonyms:**

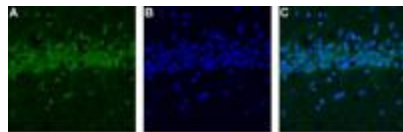
FAM26C

**Protein Families:**

Transmembrane

**Product images:**

Western blot analysis of rat brain (lanes 1 and 4), mouse brain (lanes 2 and 5), U-87 MG (lanes 3 and 6) and C6 (lanes 4 and 8) lysates: 1. Anti-Calcium Homeostasis Modulator 1 antibody, (1:200). 2. Anti-Calcium Homeostasis Modulator 1 antibody, preincubated with the control peptide antigen.



Expression of Calcium Homeostasis Modulator 1 in rat hippocampus. Immunohistochemical staining of rat hippocampus using Anti-Calcium Homeostasis Modulator 1 antibody. A. Staining of Calcium Homeostasis Modulator 1 appears only in the hippocampal CA1 pyramidal layer (red). B. Nuclear staining using DAPI as the counterstain (blue). C. Merge of A and B.