# CALHM2 (Y-13): sc-167377



The Power to Overtion

### **BACKGROUND**

The level of intracellular calcium is tightly regulated in all eukaryotic cells. A modest increase in this level can result in a myriad of physiological responses, most of which are mediated by calmodulin (CaM), the universal calcium sensor. CALHM2 (calcium homeostasis modulator protein 2), also known as FAM26B, is a 323 amino acid multi-pass membrane protein that may be involved in the modulation of calcium signaling stemming from bitter, sweet and umami receptor activation in taste buds. Unlike CALHM1, it is not likely that CALHM2 plays a role in the pathogenesis of Alzheimer's Disease. There are three isoforms of CALHM2 that are produced as a result of alternative splicing events. The gene encoding CALHM2 maps to human chromosome 10, which contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome.

# **REFERENCES**

- Dreses-Werringloer, U., Lambert, J.C., Vingtdeux, V., Zhao, H., Vais, H., Siebert, A., Jain, A., Koppel, J., Rovelet-Lecrux, A., Hannequin, D., Pasquier, F., Galimberti, D., Scarpini, E., Mann, D., Lendon, C., Campion, D., Amouyel, P., Davies, P., Foskett, J.K., Campagne, F. and Marambaud, P. 2008. A polymorphism in CALHM1 influences Ca<sup>2+</sup> homeostasis, Aβ levels, and Alzheimer's disease risk. Cell 133: 1149-1161.
- Lambert, J.C., Campagne, F. and Marambaud, P. 2008. CALHM1, a novel gene to blame in Alzheimer disease. Med. Sci. 24: 923-924.
- Tanzi, R.E. and Bertram, L. 2008. Alzheimer's disease: The latest suspect. Nature 454: 706-708.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612235. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Moyer, B.D., Hevezi, P., Gao, N., Lu, M., Kalabat, D., Soto, H., Echeverri, F., Laita, B., Yeh, S.A., Zoller, M. and Zlotnik, A. 2009. Expression of genes encoding multi-transmembrane proteins in specific primate taste cell populations. PLoS ONE 4: e7682.
- Shibata, N., Kuerban, B., Komatsu, M., Ohnuma, T., Baba, H. and Arai, H. 2010. Genetic association between CALHM1, 2, and 3 polymorphisms and Alzheimer's disease in a Japanese population. J. Alzheimers Dis. 20: 417-421.
- Lin, K., Tang, M., Han, H., Guo, Y., Lin, Y. and Ma, C. 2010. Association between the polymorphisms of CALHM1 and GOLPH2 genes and Alzheimer's disease. Psychiatr. Genet. 20: 190.

# **CHROMOSOMAL LOCATION**

Genetic locus: CALHM2 (human) mapping to 10q24.33; Calhm2 (mouse) mapping to 19 C3.

### **SOURCE**

CALHM2 (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CALHM2 of human origin.

#### **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-167377 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### **APPLICATIONS**

CALHM2 (Y-13) is recommended for detection of CALHM2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other FAM26 family members.

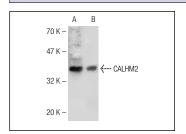
CALHM2 (Y-13) is also recommended for detection of CALHM2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for CALHM2 siRNA (h): sc-90780, CALHM2 siRNA (m): sc-145035, CALHM2 shRNA Plasmid (h): sc-90780-SH, CALHM2 shRNA Plasmid (m): sc-145035-SH, CALHM2 shRNA (h) Lentiviral Particles: sc-90780-V and CALHM2 shRNA (m) Lentiviral Particles: sc-145035-V.

Molecular Weight of CALHM2: 36/24/22 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, Hep G2 cell lysate: sc-2227 or SK-N-MC cell lysate: sc-2237.

### **DATA**



CALHM2 (Y-13): sc-167377. Western blot analysis of CALHM2 expression in HeLa (A) and SK-N-MC (B) whole cell lysates.

#### STORAGI

Store at  $4^{\circ}$  C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

# **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

## **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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