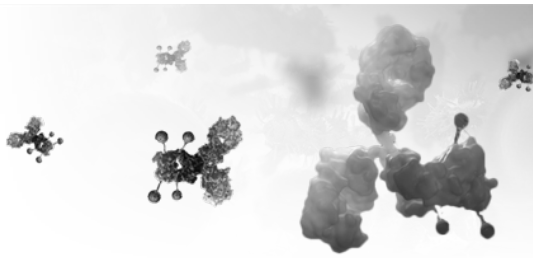

Mouse Anti-CALHM1 monoclonal antibody, clone 43D3 (CABT-RM157)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects Calcium homeostasis modulator protein 1 (CALHM1). It targets an epitope within 11 amino acids from the C-terminal region.
Target	CALHM1
Immunogen	Recombinant fragment corresponding to 144 amino acids from the C-terminal region of human Calcium homeostasis modulator protein 1 (CALHM1).
Isotype	IgG2a, κ
Source/Host	Mouse
Species Reactivity	Human, Mouse
Clone	43D3
Purification	Protein G purified
Conjugate	unconjugated
Applications	Dot,IHC, WB
Epitope	cytoplasmic domain
Molecular Weight	~46 kDa observed; 38.26 kDa calculated. Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	100 µl

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Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl
Preservative	0.05% sodium azide
Storage	Stable for 1 year at 2-8°C from date of receipt.

BACKGROUND

Introduction	Calcium homeostasis modulator protein 1 is encoded by the CALHM1 gene in human. CALHM1 is a highly conserved N-glycosylated multi-pass transmembrane protein that is localized in both the cell membrane and endoplasmic reticulum membrane. It serves as a non-selective channel permeable to many ionic species, with relative permeabilities following the sequence Ca2+:Na+:K+:Cl-. It is predominantly expressed in adult brain and is specifically expressed in circumvallate taste bud cells. In type II taste bud cells, it plays a central role in sweet, bitter, and umami taste perception by inducing ATP release from the cell. It is shown to be localized to points of contact between the receptor cells and sensory nerve fibers. In neurons, CALHM1 plays an important role in Ca2+ homeostasis and flux through the membrane, especially in response to low extracellular Ca2+ and is activated by a decrease in extracellular Ca2+ levels. CALHM1 is reported to trigger the activation of MEK1/2, RSK1/2/3 and MSK1 that are upstream and downstream effectors of ERK1/2 signaling and pharmacological inhibition of CALHM1 permeability is reported to block the effect of CALHM1 on the MEK, ERK, RSK and MSK signaling cascade.
Keywords	CALHM1; calcium homeostasis modulator 1; FAM26C, family with sequence similarity 26, member C; calcium homeostasis modulator protein 1; family with sequence similarity 26, member C; FAM26C; MGC39514; MGC39617

GENE INFORMATION

Entrez Gene ID	255022
UniProt ID	Q8IU99

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