

Product datasheet for **TA300636**

Calmodulin (CALM2) Rabbit Monoclonal Antibody [Clone ID: EP799Y]

Product data:

Product Type:	Primary Antibodies
Clone Name:	EP799Y
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:1000 - 1:5000; IHC-P: Use at an assay dependent dilution; ICC/IF: 1:100 - 1:250; FC: 1:50; IP: 1:50
Reactivity:	Mouse, Rat, Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide corresponding to residues in the C-terminus of human Calmodulin was used as immunogen.
Formulation:	PBS 49%, Sodium azide 0.01%, Glycerol 50%, BSA 0.05%
Purification:	Tissue culture supernatant
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	17 kDa
Gene Name:	calmodulin 2 (phosphorylase kinase, delta)
Database Link:	NP_001734 Entrez Gene 12314 Mouse Entrez Gene 50663 Rat Entrez Gene 805 Human P62158
Background:	Calmodulin (CaM) is a calcium modulator protein and a transducer of calcium signals (1-2). Upon calcium binding, calmodulin undergoes conformational changes and binds and modulates a diverse array of proteins. Calcium-bound CaM (Ca ²⁺ -CaM) can assume a variety of shapes depending on the target (3). Ca ²⁺ -CaM binds many kinases, phosphatases, signaling proteins, and structural proteins affecting a wide variety of processes including neurotransmitter release, muscle contraction, metabolism, apoptosis, inflammation, membrane protein organization, and cytoskeleton movement (2, 4-5).



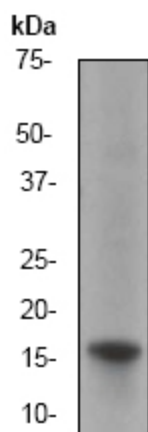
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Synonyms: caM; CAMII; LQT15; PHKD; PHKD2

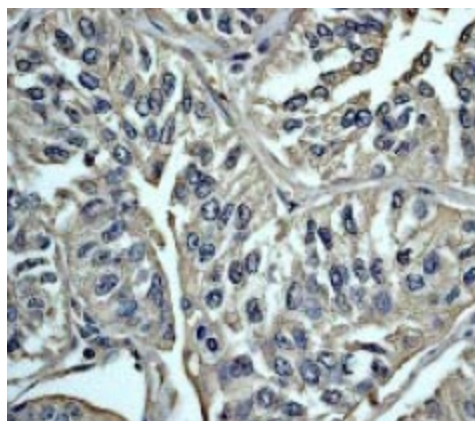
Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease, Calcium signaling pathway, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term potentiation, Melanogenesis, Neurotrophin signaling pathway, Olfactory transduction, Oocyte meiosis, Phosphatidylinositol signaling system, Vascular smooth muscle contraction

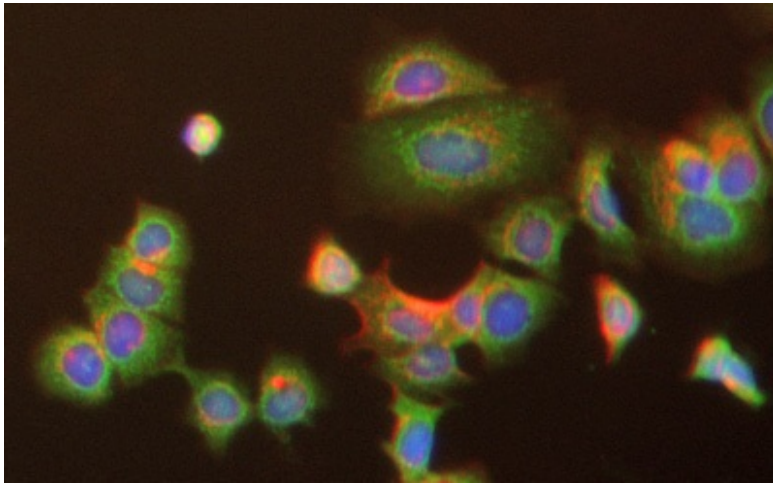
Product images:



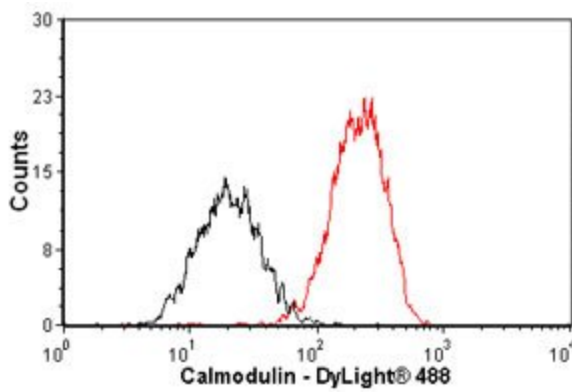
Western blot - Calmodulin antibody [EP799Y]; Anti-Calmodulin antibody [EP799Y] at 1/5000 dilution + NIH 3T3 cell lysate (10ug/lane). Predicted band size : 17 kDa. Observed band size : 16 kDa.



Immunohistochemistry (Paraffin-embedded sections) - Calmodulin antibody [EP799Y]; Ab45689 (1:250) staining human Calmodulin in human urinary bladder carcinoma by immunohistochemistry in paraffin embedded tissue.



ICC/IF image of TA300636 stained MCF7 cells. The cells were incubated with the antibody overnight at 4. The secondary antibody (green) was Alexa Fluor 488 goat anti-rabbit IgG (H+L) used at 1:1000 for 1h. Alexa Fluor 594 WGA was used to label plasma membranes (red) at 1:200 for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43uM.



Flow Cytometry - Anti-Calmodulin antibody; Overlay histogram showing MCF-7 cells stained with TA300636 (red line). The secondary antibody used was DyLight 488 goat anti-rabbit IgG (H+L) at 1:500. Isotype control antibody (black line) was rabbit monoclonal IgG (0.5ug/1x10⁶ cells) used under the same conditions. This antibody gave a decreased signal in MCF-7 cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.