

# Rabbit Calmodulin Polyclonal Antibody | anti-CALM3 antibody

Calmodulin Antibody

| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                                                                       |
|-----------|--------|-------------------|------------------------------------------------------------------------------------|
| AAA322356 | Rabbit | Human, Mouse, Rat | ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot |

## PRODUCT SYNONYMS

Calmodulin; Polyclonal Antibody; Calmodulin Antibody; anti-CALM3 antibody

## PRODUCT SPECIFICATIONS

|                                                 |                                                                                                          |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                   |
| Reactivity                                      | Human, Mouse, Rat                                                                                        |
| Clonality                                       | Polyclonal                                                                                               |
| Isotype                                         | IgG                                                                                                      |
| Specificity                                     | Calmodulin antibody detects endogenous levels of total Calmodulin                                        |
| Purity/Purification                             | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.            |
| Form/Format                                     | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.            |
| Concentration                                   | 1mg/ml (varies by lot)                                                                                   |
| Sequence Length                                 | 149                                                                                                      |
| Applicable Applications for anti-CALM3 antibody | ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot) |
| Immunogen                                       | A synthesized peptide derived from human Calmodulin                                                      |
| Subcellular Location                            | Cytoskeleton                                                                                             |
| Conjugation                                     | Unconjugated                                                                                             |
| Preparation and Storage                         | Store at -20 degree C. Stable for 12 months from date of receipt.                                        |

## IMAGES



### IHC (Immunohistochemistry)

AAA322356 at 1/100 staining Human prostate tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



### IHC (Immunohistochemistry)

AAA322356 at 1/100 staining human brain tissues sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 62 degree C.



#### WB (Western Blot)

Western blot analysis of Calmodulin expression in NIH-3T3 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



#### IF (Immunofluorescence)

AAA322356 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

## ADDITIONAL INFORMATION

### Related Product Information for anti-CALM3 antibody

**Description:** Calmodulin is the archetype of the family of calcium-modulated proteins of which nearly 20 members have been found. They are identified by their occurrence in the cytosol or on membranes facing the cytosol and by a high affinity for calcium.

**Function:** Calmodulin mediates the control of a large number of enzymes, ion channels, aquaporins and other proteins through calcium-binding. Among the enzymes to be stimulated by the calmodulin-calcium complex are a number of protein kinases and phosphatases. Together with CCP110 and centrin, is involved in a genetic pathway that regulates the centrosome cycle and progression through cytokinesis.

**Subunit Structure:** Interacts with MYO1C, MYO5A and RRAD. Interacts with MYO10 (By similarity). Interacts with CEP97, CCP110, TTN/titin and SRY (PubMed:9804419, PubMed:12871148, PubMed:15746192, PubMed:16760425, PubMed:17719545). Interacts with USP6; the interaction is calcium dependent (PubMed:16127172). Interacts with CDK5RAP2 (PubMed:20466722). Interacts with SCN5A (By similarity). Interacts with RYR1 (PubMed:18650434). Interacts with FCHO1 (PubMed:22484487). Interacts with MIP in a 1:2 stoichiometry; the interaction with the cytoplasmic domains from two MIP subunits promotes MIP water channel closure (By similarity). Interacts with ORAI1; this may play a role in the regulation of ORAI1-mediated calcium transport (By similarity). Interacts with IQCF1 (By similarity). Interacts with SYT7 (By similarity). Interacts with CEACAM1 (via cytoplasmic domain); this interaction is in a calcium dependent manner and reduces homophilic cell adhesion through dissociation of dimer (By similarity). Interacts with RYR2; regulates RYR2 calcium-release channel activity (PubMed:27516456, PubMed:18650434). Interacts with PCP4; regulates calmodulin calcium-binding (PubMed:27876793). Interacts with the heterotetrameric KCNQ2 and KCNQ3 channel; the interaction is calcium-independent, constitutive and participates to the proper assembly of a functional heterotetrameric M channel (PubMed:27564677).

**Post-translational Modifications:** Ubiquitination results in a strongly decreased activity. Phosphorylation results in a decreased activity.

**Similarity:** Belongs to the calmodulin family.

## NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | <a href="#">1050115335</a>                                                                                                                                                                                                                              |
| NCBI GeneID                      | <a href="#">808</a>                                                                                                                                                                                                                                     |
| NCBI Accession #                 | <a href="#">NP_001316851.1</a>                                                                                                                                                                                                                          |
| NCBI GenBank Nucleotide #        | <a href="#">NM_001329922.1</a>                                                                                                                                                                                                                          |
| UniProt Accession #              | <a href="#">P0DP25</a> ; <a href="#">P02593</a> ; <a href="#">P62158</a> ; <a href="#">P70667</a> ; <a href="#">P99014</a> ; <a href="#">Q13942</a> ; <a href="#">Q53S29</a> ; <a href="#">Q61379</a> ; <a href="#">Q61380</a> ; <a href="#">Q96HK3</a> |
| Molecular Weight                 | Observed: 17 kDa<br>Predicted: 17 kDa                                                                                                                                                                                                                   |
| NCBI Official Full Name          | calmodulin-3 isoform 1                                                                                                                                                                                                                                  |
| NCBI Official Synonym Full Names | calmodulin 3                                                                                                                                                                                                                                            |
| NCBI Official Symbol             | CALM3                                                                                                                                                                                                                                                   |
| NCBI Official Synonym Symbols    | CaM; CALM; CAM1; CAM2; CAMB; PHKD; PHKD3; CaMIII; HEL-S-72                                                                                                                                                                                              |
| NCBI Protein Information         | calmodulin-3                                                                                                                                                                                                                                            |
| UniProt Protein Name             | Calmodulin-3                                                                                                                                                                                                                                            |

|                            |                            |
|----------------------------|----------------------------|
| UniProt Gene Name          | CALM3                      |
| UniProt Synonym Gene Names | CALML2; CAM3; CAMC; CAMIII |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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