

## Calmodulin Rabbit Monoclonal Antibody

Cat. No.	Product Name	Pack Size
AF1435	Calmodulin Rabbit Monoclonal Antibody	50μl

### Description:

Source	Applications	Cross-reactivity	M.W.
Rabbit	WB, IP, IF, IHC, ICC	H, M, R	17kDa

WB, Western blot; IP, Immunoprecipitation; IF, Immunofluorescence; IHC, Immunohistochemistry; ICC, Immunocytochemistry; FC, Flow Cytometry; ELISA, Enzyme-linked Immunosorbent Assay; ChIP, Chromatin Immunoprecipitation Assay.

H, Human; M, Mouse; R, Rat; C, Chicken; Cw, Cow; Dg, Dog; Gp, Guinea pig; Hm, Hamster; Hr, Horse; Mk, Monkey; Pg, Pig; Rb, Rabbit; S, Sheep; Z, Zebrafish; All, all species expected.

- A Primary Antibody Dilution Buffer is provided with this product and can be used for primary antibody dilution in Western blot or other applications.
- The recommended dilution factors of this product in different applications are as follows. They can be adjusted appropriately according to the level of antigen in samples.

WB	IP	IF	IHC	ICC	FC	ELISA	ChIP
1:1,000	1:10-1:50	1:50-1:200	1:50-1:200	1:50-1:200	—	—	—

- The detailed information is as follows:

About this Antibody	
Name	Calmodulin Rabbit Monoclonal Antibody
Category	Rabbit Monoclonal Antibody (RabMAb); Primary antibody
Isotype	IgG
Purification	Affinity purification
About the Immunogen	
Immunogen	Recombinant protein
Gene ID	801/805/808(Human); 12313/12314/12315(Mouse); 24242/24244/ 50663(Rat)
SwissProt	P62158(Human); P62204(Mouse); P62161(Rat)
Synonyms	CALML2; CAMI; CPVT4; DD132; PHKD; caM
Category	Neuronal Signaling
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. CaM directly modulates the activity of protein kinases and phosphatases, ion channels and nitric oxide synthetases. It is generally involved in such diverse processes as cell proliferation, endocytosis, cellular adhesion, protein turn over and smooth muscle contraction. CaM (calmodulin) is an acidic protein, 148 amino acids in length, with four helix-loop-helix calcium binding domains. In humans, 3 distinct genes have been identified (CALM1, CALM2 and CALM3); each encoding the identical protein. CALML3 (calmodulin-like 3, or calmodulin-related protein NB-1) shares significant sequence identity with CaM and it is suggested that it may competitively bind CaM substrates. Interestingly, CaM has been shown to associate with the carboxy terminus of the dystrophin gene product, implying that it may regulate its activity.

### Packing List:

Item	Component	Quantity
AF1435	Calmodulin Rabbit Monoclonal Antibody	50μl
AZ050	Primary Antibody Dilution Buffer for Western Blot	50ml
Manual	—	1 copy

## Storage Conditions:

Store the Antibody at -20°C and Primary Antibody Dilution Buffer at 4°C for up to one year. The Primary Antibody Dilution Buffer can be stored at -20°C for long-term storage, but freeze-thaw may result in slight turbidity and a small amount of insoluble substance.

## Precautions:

- This product can be recovered for multiple reuses (5-10 times) in Western blot (WB), immunofluorescence (IF), and immunocytochemistry (ICC). Store the unused or recovered diluted antibodies at 4°C.
- The recovered antibodies can be reused in the same way as freshly diluted antibodies. If slight turbidity appears, centrifuge the antibody at 10,000×g for 1-3 minutes and use the supernatant for subsequent assays. But it should be discarded when there is significant flocculation or any microbial growth.
- The Primary Antibody Dilution Buffer included in this product can also be used in immunofluorescence (IF), immunohistochemistry (IHC), immunocytochemistry (ICC), and other appropriate applications. But for optimal results, we recommend using the primary antibody dilution buffer specifically designed for each assay.
- This product is for R&D only. Not for drug, household, or other uses.
- For your safety and health, please wear a lab coat and disposable gloves during the operation.

## Instructions for Use:

### 1. Western blot

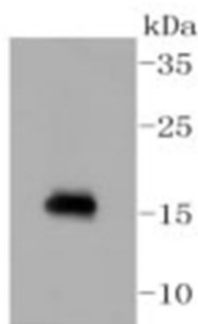
- Dilute an appropriate amount of the Antibody with the provided Primary Antibody Dilution Buffer to an appropriate concentration as required.
- Transfer the blocked membrane into the diluted primary antibody and incubate at room temperature for 2 hours or overnight at 4°C with gently shaking. The membrane should be covered completely by the diluted antibody.
- Recover the diluted primary antibody and store at 4°C for later use.
- Proceed to next step in Western blot. For detailed procedures of Western blot, please refer to <http://www.beyotime.com/support/western.htm>.

### 2. Immunostaining

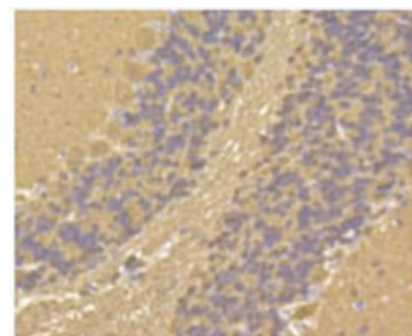
For Immunostaining, we recommend using the Immunol Staining Primary Antibody Dilution Buffer (Beyotime, P0103) to dilute the Antibody. The diluted antibody can be recovered for multiple reuses. For detailed procedures of Immunostaining, please refer to <http://www.beyotime.com/support/immunol-staining.htm>.

### 3. For other applications, please refer to appropriate protocols.

### 4. Typical figures



**Fig. 1.** Western blot analysis of Calmodulin in rat brain lysates using the Calmodulin antibody at 1/1,000 dilution.



**Fig. 2.** Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue using the Calmodulin antibody. Counterstained with hematoxylin.

## Related Products:

Cat. No.	Product Name	Pack Size
E6001	MiniProGel™ Protein Gel-Cast and Electrophoresis System (4-gel)	1 Set
E6005	MiniProGel™ Protein Gel-Cast and Electrophoresis System (2-	1 Set

	gel)	
E6050	MiniBlot™ Electrophoretic Transfer Cell	1 Set
E6150	MiniProGel™ Protein Gel-Cast, Electrophoresis and Transfer System (2-gel/2-blot)	1 Set
E6155	MiniProGel™ Protein Gel-Cast, Electrophoresis and Transfer System (4-gel/2-blot)	1 Set
E6159	MiniProGel™ Protein Gel-Cast, Electrophoresis and Transfer System (4-gel/4-blot)	1 Set
E6080	BeyoPower™ Elite Power Supply (300V/600mA/100W)	1 Set
E6085	BeyoPower™ Prime Power Supply (300V/2000mA/200W)	1 Set
E6600	TissueMaster™ Handheld Homogenizer	1 Set
EI600	BeyoImager™ 600 Chemiluminescent Imaging System	1 Set
FFP24	PVDF Membrane (6.6×8.5cm, 0.2µm)	20 pcs/Package
FFP32	PVDF Membrane (6.6×8.5cm, 0.45µm)	20 pcs/Package
FFP51	Filter Paper for Blotting Transfer	100 pcs/Package
FFX050-FFX055	Western Membrane Washing Box	1
P0006	Bradford Protein Assay Kit	1000T
P0012	BCA Protein Assay Kit	500T
P0012A	SDS-PAGE Gel Preparation Kit	30-50 gels
P0012AC	SDS-PAGE Gel Quick Preparation Kit	30-50 gels
P0013	Cell Lysis Buffer for Western or IP	100ml
P0013B-P0013D	RIPA Lysis Buffer Set (Strong, Medium and Weak)	100ml
P0014A/P0014B	SDS-PAGE Electrophoresis Buffer with Tris-Gly, Powder	1L/10L
P0014C/P0014D	SDS-PAGE Electrophoresis Buffer with Tris-Gly, 10X	100ml/500ml
P0015/P0015L	SDS-PAGE Sample Loading Buffer (5X)	2ml/15ml
P0015F	SDS-PAGE Sample Loading Buffer (6X)	2ml
P0017F	BeyoBlue™ Coomassie Blue Super Fast Staining Solution	250ml
P0018A	BeyoECL Star	100ml/500ml
P0018F	BeyoECL Moon	100ml/500ml
P0018S/P0018M	BeyoECL Plus	100ml/500ml
P0021A	Western Transfer Buffer	1L
P0021S	Soaking and Activation Buffer for PVDF Membrane	250ml
P0022	Ponceau S Staining Solution	120ml
P0023A	Primary Antibody Dilution Buffer for Western Blot	100ml/500ml
P0023B	Blocking Buffer for Western Blot	100ml/500ml
P0023C	Wash Buffer for Western Blot	250ml
P0023D	Secondary Antibody Dilution Buffer for Western Blot	100ml/500ml
P0025	Western Stripping Buffer	250ml
P0059	Recombinant 16-Tag Protein	200µl/1ml
P0066	Prestained Protein Molecular Weight Marker (19-117kD)	200µl
P0068	Prestained Color Protein Ladder (10-180kD)	200µl
P0071	BeyoColor™ Prestained Color Protein Ladder (6.5-270kD)	200µl
P0075	BeyoColor™ Prestained Color Protein Ladder (10-170kD)	200µl
P0078	BeyoColor™ Prestained Color Protein Ladder (15-120kD)	200µl
P0095	Immunostaining Permeabilization Buffer with Saponin	100ml/500ml
P0096	Immunostaining Permeabilization Buffer with Triton X-100	100ml/500ml
P0097	Enhanced Immunostaining Permeabilization Buffer	100ml/500ml
P0098	Immunol Staining Fix Solution	100ml/500ml
P0099	4% Paraformaldehyde Fix Solution	100ml/500ml
P0102	Immunol Staining Blocking Solution	100ml
P0103	Immunol Staining Primary Antibody Dilution Buffer	100ml

P0106	Immunol Staining Wash Buffer	250ml
P0108	Immunol Fluorescence Staining Secondary Antibody Dilution Solution	100ml
P0220-P0235	QuickBlock™ Blocking Buffer	100ml
P0252	QuickBlock™ Western Blocking Buffer	100ml/500ml
P0256	QuickBlock™ Primary Antibody Dilution Buffer for Western Blot	100ml/500ml
P0258	QuickBlock™ Secondary Antibody Dilution Buffer for Western Blot	100ml/500ml
P0260	QuickBlock™ Blocking Buffer for Immunol Staining	100ml
P0262	QuickBlock™ Primary Antibody Dilution Buffer for Immunol Staining	100ml
P0265	QuickBlock™ Secondary Antibody Dilution Buffer for Immunofluorescence	100ml
P0267	QuickBlock™ Secondary Antibody Dilution Buffer for Immunohistochemistry	100ml
P0280	InstantView™ SDS-PAGE Protein Staining and Loading Buffer (5X)	1ml
P0050-P0058	BeyoGel™ SDS-PAGE Precast Gel (Tris-Gly, 12 wells)	10pcs/50pcs
P0448-P0472	BeyoGel™ Plus Precast PAGE Gel (Tris-Gly, 10/15 wells)	10pcs/50pcs
P0501-P0528	BeyoGel™ Plus Precast PAGE Gel (Hepes, 10/15 wells)	10pcs/50pcs
P0552	BeyoGel™ Plus SDS-PAGE Hepes Electrophoresis Buffer	100ml/500ml
P0670-P0678	SDS-PAGE Resolving Gel Master Mix	250ml/500ml
P0683	SDS-PAGE Stacking Gel Master Mix	250ml/500ml
P0686-P0695	SDS-PAGE Gel SuperQuick Preparation Kit	30-50 gels
P1005-P1031	Protease inhibitor cocktail (50X/100X)	1ml/5ml
P1045-P1066	Protease and phosphatase inhibitor cocktail (50X)	1ml/2ml/5ml/10ml
P1081-P1097	Phosphatase inhibitor cocktail (50X)	2ml/10ml
P1112/P1113	Deacetylase Inhibitor Cocktail (100X)	1ml/5ml
R0121	AllProtect™ Nucleic Acid and Protein Stabilization Reagent for Animal Tissue	25ml/100ml

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