

## Anti-CALM1 Polyclonal Antibody

## Product Details

Ig Type:	IgG
Reactivity:	Human, Mouse, Rat (predicted: Chicken, Dog, Cow, Horse)
Molecular Weight:	Theoretical: 16-20 kDa. Actual: 20 kDa.
Purification:	Protein A purified

## Applications

## 1. Sample:

Lane1: Brain (Rat) Lysate at 30 µg

Lane2: Liver (Rat) Lysate at 30 µg

Primary: Anti-Calmodulin (TMAB-00269) at 1:200 dilution;

Secondary: HRP conjugated Goat Anti-Rabbit IgG (secondary antibody) at 1:3000 dilution;

Predicted band size: 16 kDa

Observed band size: 20 kDa

2. Paraformaldehyde-fixed, paraffin embedded (rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Calmodulin 1/2/3) Polyclonal Antibody, Unconjugated (TMAB-00269) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

3. Tissue/cell: Human hepatocellular carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min;

## Verified Activity:

Incubation: Anti-Calmodulin Polyclonal Antibody, Unconjugated (TMAB-00269) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

4. Paraformaldehyde-fixed, paraffin embedded (rat spleen); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Calmodulin 1/2/3) Polyclonal Antibody, Unconjugated (TMAB-00269) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

5. Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Calmodulin 1/2/3) Polyclonal Antibody, Unconjugated (TMAB-00269) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

6. Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Calmodulin 1/2/3) Polyclonal Antibody, Unconjugated (TMAB-00269) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

7. Blank control (black line): SH-SY5Y.

Primary Antibody (green line): Rabbit Anti-Calmodulin 1/2/3 antibody (TMAB-00269)

Dilution: 1 µg/Test;

Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF488

Dilution: 0.5 µg/Test.

Isotype control (orange line): Normal Rabbit IgG

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

8. Blank control (black line): SH-SY5Y.

Primary Antibody (green line): Rabbit Anti-Calmodulin 1/2/3 antibody (TMAB-00269)

Dilution: 1 µg/Test;

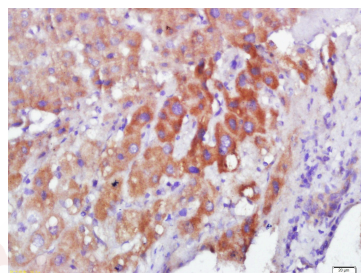
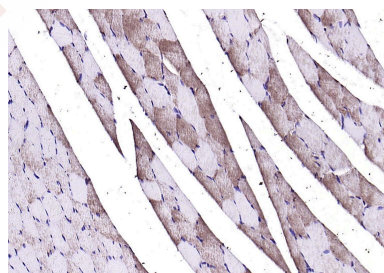
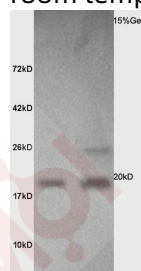
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF488

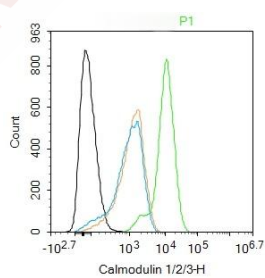
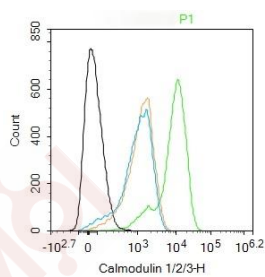
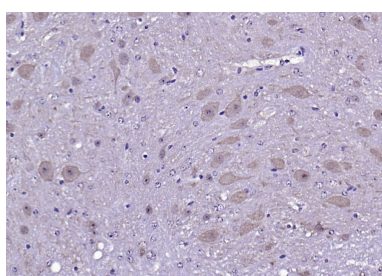
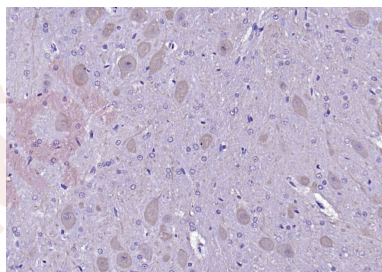
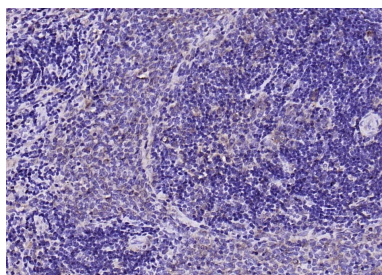
Dilution: 0.5 µg/Test.

Isotype control (orange line): Normal Rabbit IgG

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.





Application: FCM,IF,IHC-Fr,IHC-P,WB

Recommended WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1ug/Test

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human Calmodulin
Antigen Species:	Human
Gene ID:	801
Uniprot ID:	P0DP23
Synonyms:	CAM2;CAMIII;CALM2;CAMC;CALM;CALM1;Calmodulin;CALML2;CAMB;CAM3;CAM1;CaM;CALM3
Biology Area:	Metabolism of carbohydrates,Apoptosis,Cardiac metabolism,Carbohydrate metabolism,Cancer,Heart disease,Calcium Binding Proteins,Calmodulin Pathway

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### Research Background

Calmodulin consists of two glycoproteins, 34 and 39 kDa, sometimes designated epithelial antigen, epithelial specific antigen, and epithelial glycoprotein. The glycoproteins are located on the cell membrane surface and in the cytoplasm of virtually all epithelial cells with the exception of most squamous epithelia, hepatocytes, renal proximal tubular cells, gastric parietal cells and myoepithelial cells. Epithelial Calmodulin is found in the large majority of adenocarcinomas of most sites (50-100% in various studies; as well as neuroendocrine tumours, including small cell carcinoma. Renal cell carcinoma and hepatocellular carcinoma stain in about 30% of the cases. Calmodulin mediates the control of a large number of enzymes and other proteins by Ca(2+). Among the enzymes to be stimulated by the calmodulin Ca(2+) complex are a number of protein kinases and phosphatases. Calmodulin has four functional calcium binding sites.

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