

Anti-Phospho-CaMK2 alpha (Tyr230) Polyclonal Antibody

Product Details

| | |
|-------------------|---|
| Ig Type: | IgG |
| Reactivity: | Human, Mouse, Rat (predicted: Chicken, Dog, Pig, Cow, Horse, Rabbit, Sheep) |
| Molecular Weight: | Theoretical: 54 kDa. Actual: 50-54 kDa. |
| Purification: | Protein A purified |

Applications

1. 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 (p-CaMK2 alpha (Tyr230)) Polyclonal Antibody, Unconjugated (TMAB-01398) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

2. Paraformaldehyde-fixed, paraffin embedded (Human kidney); 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 (p-CaMK2 alpha (Tyr230)) Polyclonal Antibody, Unconjugated (TMAB-01398) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

3. Paraformaldehyde-fixed, paraffin embedded (Human gastric); 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 (p-CaMK2 alpha (Tyr230)) Polyclonal Antibody, Unconjugated (TMAB-01398) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

Verified Activity:

4. Sample:

Cerebrum (Rat) cell Lysate at 40 µg

Primary: Anti-phospho-CaMK2 alpha (Tyr230) (TMAB-01398) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54 kDa

Observed band size: 54 kDa

5. Blank control: K562. Primary Antibody (green line): Rabbit Anti-phospho-CaMK2 alpha (Tyr230) antibody (TMAB-01398) Dilution: 2 µg/Test; Secondary Antibody: Goat anti-rabbit IgG-FITC Dilution: 0.5 µg/Test. Protocol The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 0.1% PBST for 20 min at room temperature. 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.

6. Paraformaldehyde-fixed, paraffin embedded (Mouse stomach); 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 (p-CaMK2 alpha) Polyclonal Antibody, Unconjugated (TMAB-01398) at 1:400 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

7. Sample:

Lane 1: Mouse Muscle tissue lysates

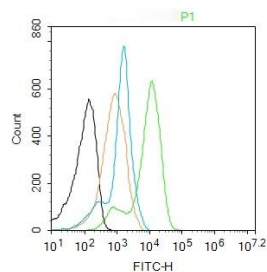
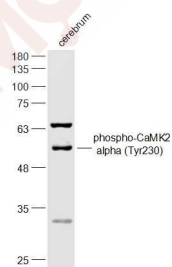
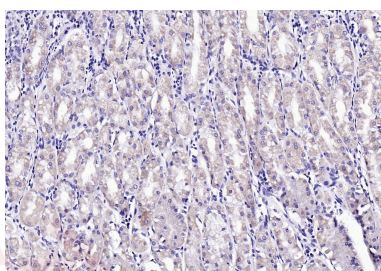
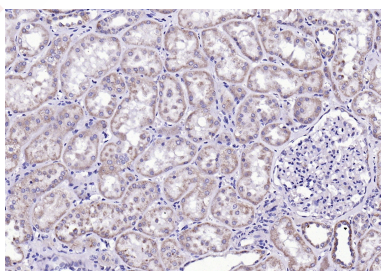
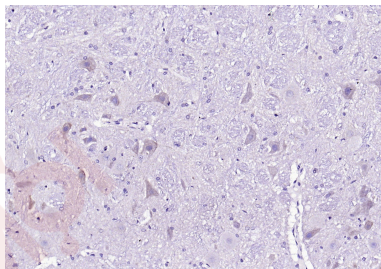
Lane 2: Mouse Heart tissue lysates

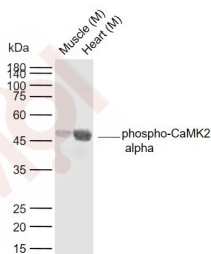
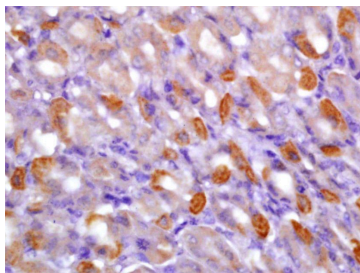
Primary: Anti-phospho-CaMK2 alpha (Tyr230) (TMAB-01398) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54 kDa

Observed band size: 50 kDa





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: 2ug/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 Synthesised phosphopeptide: human CaMK2 alpha around the phosphorylation site of Tyr231

Antigen Species: Human

Gene ID: 815

Uniprot ID: Q13554

Synonyms: CAMKA;CaM kinase II beta chain;CaM kinase II delta chain;Calcium/Calmodulin Dependent Protein Kinase II G;MGC155201;CAM2;Calcium/calmodulin-dependent protein kinase type II subunit alpha;Calcium calmodulin dependent protein kinase CaM kinase II alpha;p-CaMK2 alpha (Tyr230);CaMK II alpha subunit;CAMKB;CaM kinase II alpha chain;Calcium/calmodulin-dependent protein kinase(CaM kinase) II alpha;MGC123320;mKIAA0968;Calcium/calmodulin dependent protein kinase II alpha;CAMK2A;CaM kinase II delta subunit;CaMK II beta subunit;CAMK2D;p-CaMK2 alpha (Y230);Calcium calmodulin dependent protein kinase II alpha-B subunit;PK2CDD;zgc:123320;CaMK2 alpha (p-Y230);KCC2A;zgc:112538;CaMK-II subunit alpha; EC 2.7.11.17;alpha CaMKII;CaMKII;CaMK II delta subunit;KIAA0968;CAMK2B;R74975;CaM kinase II beta subunit;CaM kinase II alpha subunit;Calcium calmodulin dependent protein kinase II; CaM kinase II subunit alpha;MGC139375;PKCCD;CaMKII alpha;Calcium/calmodulin-dependent protein kinase type IIA;CaMK2 alpha (p-Tyr230)

Biology Area: Calmodulin / CaMK,Hypoxia,Hypertrophy,Response to hypoxia

Research Background

The product of this gene belongs to the serine/threonine protein kinase family and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. In mammalian cells, the enzyme is composed of four different chains: alpha, beta, gamma, and delta. The product of this gene is a beta chain. It is possible that distinct isoforms of this chain have different cellular localizations and interact differently with calmodulin. Eight transcript variants encoding eight distinct isoforms have

been identified for this gene. [provided by RefSeq, Jul 2008].

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