

**bs-0771R****[ Primary Antibody ]****CaMK2 alpha Rabbit pAb****Bioss**  
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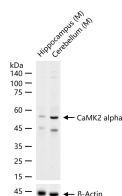
400-901-9800

**— DATASHEET —****Host:** Rabbit**Isotype:** IgG**Clonality:** Polyclonal**GeneID:** 815**SWISS:** Q13554**Target:** CaMK2 alpha**Immunogen:** KLH conjugated synthetic peptide derived from human CaMK2 alpha: 101-200/478.**Purification:** affinity purified by Protein A**Concentration:** 1mg/ml**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

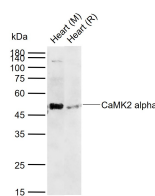
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** bs-0541P is one synthetic peptide derived from human CaMK2 beta/ gamma/ delta.

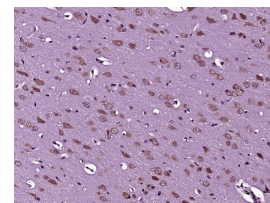
The product of this gene belongs to the serine/threonine protein kinase family and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. In mammalian cells, the enzyme is composed of four different chains: 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].

**Applications:** WB (1:500-2000)**IHC-P** (1:100-500)**IHC-F** (1:100-500)**IF** (1:100-500)**ICC/IF** (1:100)**Reactivity:** Human, Mouse, Rat**Predicted MW.:** 54 kDa**Subcellular Location:** Cell membrane**— VALIDATION IMAGES —**

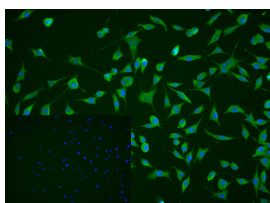
25 ug total protein per lane of various lysates (see on figure) probed with CaMK2 alpha polyclonal antibody, unconjugated (bs-0771R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Sample: Lane 1: Mouse Heart tissue lysates Lane 2: Rat Heart tissue lysates Primary: Anti-CaMK2 alpha (bs-0771R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 54 kDa Observed band size: 50 kDa



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CaMK2 alpha) Polyclonal Antibody, Unconjugated (bs-0771R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



4% Paraformaldehyde-fixed SH-SY5Y (H) cell; Triton X-100 at r.t. for 20 min; Antibody

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

incubation with (CaMK2 alpha) polyclonal Antibody, unconjugated (bs-0771R) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green, bs-60295G-FITC) at 37°C for 90 min, DAPI (blue, C02-04002) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control.

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## — SELECTED CITATIONS —

- **[IF=5.714]** Ling Chen. et al. HC067047 as a potent TRPV4 inhibitor repairs endotoxemia colonic injury. INT IMMUNOPHARMACOL. 2023 Mar;116:109648 WB ;Mouse. 36706595
- **[IF=6.3]** Long Yuan. et al. Lactobacillus johnsonii N5 from heat stress-resistant pigs improves gut mucosal immunity and barrier in dextran sodium sulfate-induced colitis. ANIM NUTR. 2023 Aug;: WB ;Mouse. 10.1016/j.aninu.2023.04.012
- **[IF=5.8]** Hailin Liu. et al. Dexamethasone upregulates macrophage PIEZO1 via SGK1, suppressing inflammation and increasing ROS and apoptosis. BIOCHEM PHARMACOL. 2024 Apr;222:116050 WB ;Mouse. 38354960
- **[IF=5.026]** Di Xia et al. Nrf2 promotes esophageal squamous cell carcinoma (ESCC) resistance to radiotherapy through the CaMKII $\alpha$ -associated activation of autophagy. Cell Biosci . 2020 Jul 30;10:90. IHC ;Human. 32760495
- **[IF=4.4]** Kai Tang. et al. Neoandrographolide inhibits mature osteoclast differentiation to alleviate bone loss and treat osteoporosis. FRONTIERS IN PHARMACOLOGY. 2025 Feb 11:16:1466057. Western Blot ;Mouse. 40008134