

Product Datasheet

CaM Kinase II alpha Antibody (6G9) - BSA Free NB100-1983

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NB100-1983

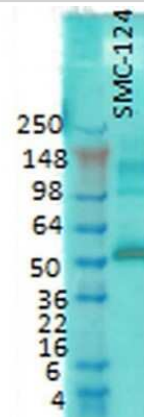
CaM Kinase II alpha Antibody (6G9) - BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	6G9
Preservative	0.09% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS (pH 7.4), 50% Glycerol
Target Molecular Weight	54 kDa
Product Description	
Host	Mouse
Gene ID	815
Gene Symbol	CAMK2A
Species	Human, Mouse, Rat, Bovine, Xenopus
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 28421537). Xenopus reactivity reported in scientific literature (PMID: 29412139). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any questions.
Specificity/Sensitivity	Detects approx 50-60kDa. Recognizes both phosphorylated and non-phosphorylated forms.
Immunogen	Partially purified rat CaMKII
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Radioimmunoassay
Recommended Dilutions	Western Blot 1:10000, ELISA, Immunohistochemistry 1:2000, Immunocytochemistry/ Immunofluorescence 1:50, Immunoprecipitation, Immunohistochemistry-Paraffin 1:10-1:500, Radioimmunoassay
Application Notes	0.1 ug/ml was sufficient for detection of CamKII in 20 ug rat brain tissue extract by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:AP as the secondary.

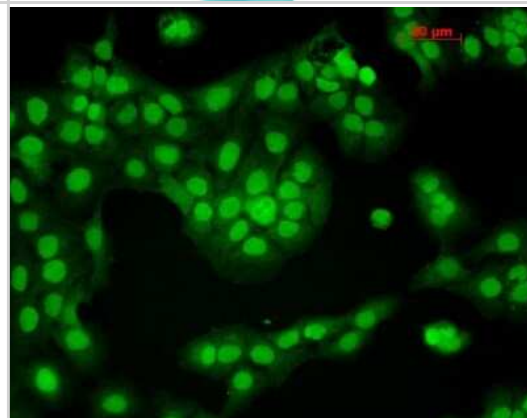


Images

Western Blot: CaM Kinase II alpha Antibody (6G9) [NB100-1983] - Western Blot analysis of Rat brain membrane lysate showing detection of CaM Kinase II alpha protein using Mouse Anti-CaM Kinase II alpha Monoclonal Antibody, Clone 6G9 (NB100-1983). Primary Antibody: Mouse Anti-CaM Kinase II alpha Monoclonal Antibody (NB100-1983) at 1:1000.



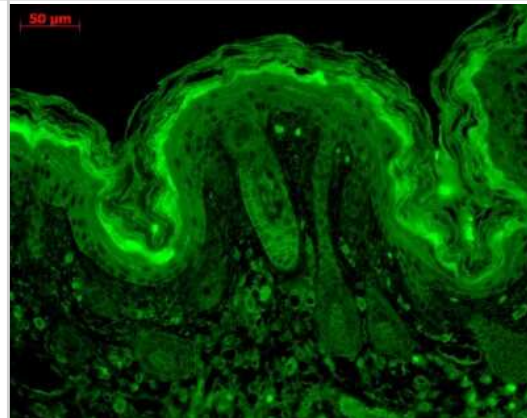
Immunocytochemistry/Immunofluorescence: CaM Kinase II alpha Antibody (6G9) [NB100-1983] - Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-CaM Kinase II alpha Monoclonal Antibody, Clone 6G9 (NB100-1983). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20C. Primary Antibody: Mouse Anti-CaM Kinase II alpha Monoclonal Antibody (NB100-1983) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Nuclear Staining.



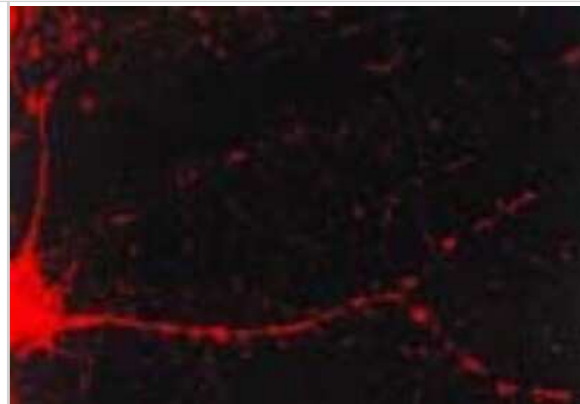
Immunohistochemistry: CaM Kinase II alpha Antibody (6G9) [NB100-1983] - Immunohistochemistry analysis using Mouse Anti-CaM Kinase II alpha Monoclonal Antibody, Clone 6G9 (NB100-1983). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-CaM Kinase II alpha Monoclonal Antibody (NB100-1983) at 1:10000 for 12 hours at 4C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 I for 2 minutes at RT. Magnification: 40x.



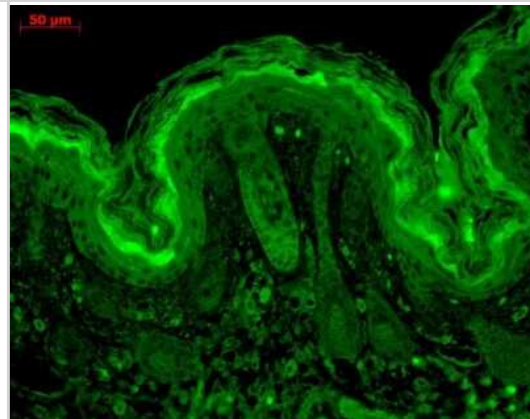
Immunocytochemistry/Immunofluorescence: CaM Kinase II alpha Antibody (6G9) [NB100-1983] - Tissue: backskin. Species: Mouse. Fixation: Bouins Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-CaMKII Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Hair follicles, epidermis.



Immunocytochemistry/Immunofluorescence: CaM Kinase II alpha Antibody (6G9) [NB100-1983] - Tissue: dissociated hippocampal neurons. Species: Mouse. Fixation: Cold 4% paraformaldehyde/0.2% glutaraldehyde in 0.1M sodium phosphate buffer. Primary Antibody: Mouse Anti-CaMKII Monoclonal Antibody at 1:1000 for 12 hours at 4C. Secondary Antibody: FITC Goat Anti-Mouse IgG (green) at 1:50 for 30 minutes at RT. Magnification: 10X. Courtesy of: Mary Kennedy, Caltech.



Immunohistochemistry: CaM Kinase II alpha Antibody (6G9) [NB100-1983] - Immunohistochemistry analysis using Mouse Anti-CaM Kinase II alpha Monoclonal Antibody, Clone 6G9 (NB100-1983). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-CaM Kinase II alpha Monoclonal Antibody (NB100-1983) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Hair follicles, epidermis.



Publications

N Micali, SK Kim, M Diaz-Busta, G Stein-O'Br, S Seo, JH Shin, BG Rash, S Ma, Y Wang, NA Olivares, JI Arellano, KR Maynard, EJ Fertig, AJ Cross, RW Bürli, NJ Brandon, DR Weinberger, JG Chenoweth, DJ Hoepfner, N Sestan, P Rakic, C Colantuoni, RD McKay Variation of Human Neural Stem Cells Generating Organizer States In $\frac{1}{2}$ Vitro before Committing to Cortical Excitatory or Inhibitory Neuronal Fates Cell Rep, 2020-05-05;31(5):107599. 2020-05-05 [PMID: 32375049]

Chen M, Wang C, Lin Y et al. Dorsal raphe nucleus-hippocampus serotonergic circuit underlies the depressive and cognitive impairments in 5xFAD male mice Transl Neurodegener 2024-07-24 [PMID: 39044270]

Rigter PMF, de Konink C, van Woerden GM. Loss of CAMK2G affects intrinsic and motor behavior but has minimal impact on cognitive behavior Frontiers in Neuroscience 2023-01-06 [PMID: 36685241] (Block/Neutralize)

Ameen SS, Griem-Krey N, Dufour A et al. N-Terminomic Changes of Neurons During Excitotoxicity Reveal Proteolytic Events Associated with Synaptic Dysfunctions and Potential Targets for Neuroprotection Molecular & cellular proteomics : MCP 2023-04-06 [PMID: 37030595] (WB, Mouse)

Griem-Krey N, Gauger SJ, Gowing EK et al. The CaMKIIa hub ligand Ph-HTBA promotes neuroprotection after focal ischemic stroke by a distinct molecular interaction Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie 2022-10-20 [PMID: 36274464] (WB, Mouse)

Rigter PMF, Wallaard I, Aghadavoud Jolfaei M et al. Adult Camk2a gene reinstatement restores the learning and plasticity deficits of Camk2a knockout mice iScience 2022-11-18 [PMID: 36304100] (IP, IF/IHC, WB, Mouse)

Schiapparelli LM, Sharma P, He HY et al. Proteomic screen reveals diverse protein transport between connected neurons in the visual system Cell reports 2022-01-25 [PMID: 35081342] (WB, Rat)

Schiapparelli LM, Shah SH, Ma Y et al. The Retinal Ganglion Cell Transportome Identifies Proteins Transported to Axons and Presynaptic Compartments in the Visual System In Vivo Cell Rep 2019-08-13 [PMID: 31412257] (WB, Rat)

Koene LMC, van Grondelle SE, Proietti Onori M et al. Effects of antiepileptic drugs in a new TSC/mTOR-dependent epilepsy mouse model Ann Clin Transl Neurol 2019-07-01 [PMID: 31353861] (IF/IHC, Mouse)

Fang Q, Li Z, Huang GD et al. Traumatic Stress Produces Distinct Activations of GABAergic and Glutamatergic Neurons in Amygdala. Front Neurosci 2018-08-21 [PMID: 30186100] (ICC/IF, Rat)

Liu H. H, McClatchy D. B, et al. Role of the visual experience-dependent nascent proteome in neuronal plasticity. Elife 2018-02-07 [PMID: 29412139] (WB, Xenopus)

Li Y, You QL, Zhang SR et al. Satb2 Ablation Impairs Hippocampus-Based Long-Term Spatial Memory and Short-Term Working Memory and Immediate Early Genes (IEGs)-Mediated Hippocampal Synaptic Plasticity. Mol. Neurobiol. 2017-04-18 [PMID: 28421537] (WB, ICC/IF, Mouse)

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NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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