

Product Datasheet

CaMKII alpha/beta [p Thr286, p Thr287] Antibody (22B1) - BSA Free NB110-96869

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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NB110-96869

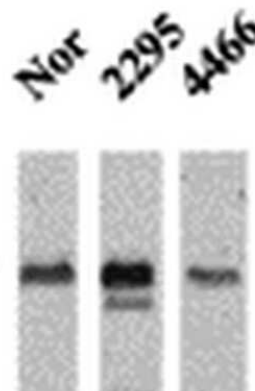
CaMKII alpha/beta [p Thr286, p Thr287] Antibody (22B1) - BSA Free

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	22B1
Preservative	0.09% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS (pH 7.4), 50% Glycerol
Product Description	
Host	Mouse
Gene ID	815
Gene Symbol	CAMK2A
Species	Human, Mouse, Rat
Specificity/Sensitivity	This antibody is specific for a and B subunits of CaMKII only when they are phosphorylated at Thr-286/287 (in B).
Immunogen	Synthetic peptide
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, ELISA, Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence 1:1000, Immunoprecipitation, Immunohistochemistry-Paraffin 1:10-1:500
Application Notes	1 ug/ml was sufficient for detection of 0.2 ug CamKII by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary. Use in immunoblotting reported in scientific literature (PMID: 27599291).

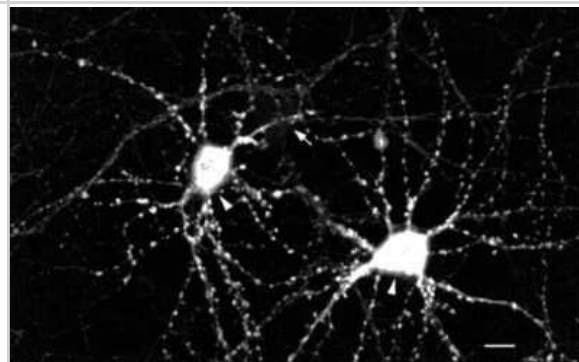


Images

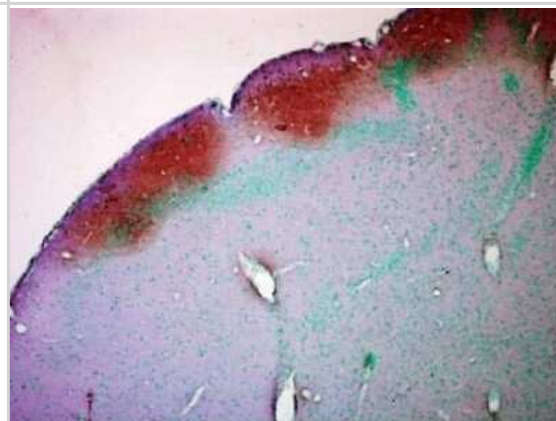
Western Blot: CaMKII alpha/beta [p Thr286, p Thr287] Antibody (22B1) [NB110-96869] - Western Blot analysis of Mouse Ventricle lysates showing detection of CaMKII alpha/beta protein using Mouse Anti-CaMKII alpha/beta Monoclonal Antibody, Clone 22B1 (NB110-96869). Primary Antibody: Mouse Anti-CaMKII alpha/beta Monoclonal Antibody (NB110-96869) at 1:1000. Analysis of CaMKII alpha/beta and NFAT phosphorylation in ventricles of 14 day old mice over-expressing CaMK.



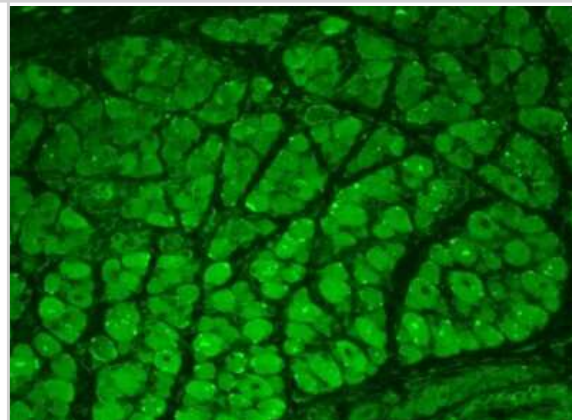
Immunocytochemistry/Immunofluorescence: CaMKII alpha/beta [p Thr286, p Thr287] Antibody (22B1) [NB110-96869] - Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-CaMKII alpha/beta Monoclonal Antibody, Clone 22B1 (NB110-96869). Tissue: dissociated hippocampal neurons. Species: Rat. Fixation: Cold 4% paraformaldehyde/0.2% glutaraldehyde in 0.1M sodium phosphate buffer. Primary Antibody: Mouse Anti-CaMKII alpha/beta Monoclonal Antibody (NB110-96869) 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: CaMKII alpha/beta [p Thr286, p Thr287] Antibody (22B1) [NB110-96869] - Immunohistochemistry analysis using Mouse Anti-CaMKII alpha/beta Monoclonal Antibody, Clone 22B1 (NB110-96869). Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-CaMKII alpha/beta Monoclonal Antibody (NB110-96869) at 1:5000 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.



Immunohistochemistry: CaMKII alpha/beta [p Thr286, p Thr287] Antibody (22B1) [NB110-96869] - Immunohistochemistry analysis using Mouse Anti-CaMKII alpha/beta Monoclonal Antibody, Clone 22B1 (NB110-96869). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-CaMKII alpha/beta Monoclonal Antibody (NB110-96869) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Muscle, hair follicle, epidermis. Backskin obtained from transgenic mice.



Publications

LaMoia TE, Hubbard BT, Guerra MT, Nasiri A et al. Cytosolic calcium regulates hepatic mitochondrial oxidation, intrahepatic lipolysis, and gluconeogenesis via CAMKII activation *Cell Metab* 2024-08-17 [PMID: 39153480]

Lee Y, Kang JS, Ham OJ et al. Gut metabolite trimethylamine N-oxide induces aging-associated phenotype of midbrain organoids for the induced pluripotent stem cell-based modeling of late-onset disease *Frontiers in Aging Neuroscience* 2022-08-16 [PMID: 36051303]

Ghane MA, Wei W, Yakout DW et al. Arc ubiquitination regulates endoplasmic reticulum-mediated Ca²⁺ release and CaMKII signaling *Frontiers in cellular neuroscience* 2023-03-14 [PMID: 36998269] (Western Blot, Mouse)

Kim Y, Jang E, Lee Y et al. Miniature Transparent Dopamine Sensor Based on Nanosphere Lithography *Advanced Materials Technologies* 2023-04-02 (WB)

Cai B, Kasikara C, Doran AC et al. MerTK signaling in macrophages promotes the synthesis of inflammation resolution mediators by suppressing CaMKII activity. *Sci Signal* 2018-09-25 [PMID: 30254055] (WB, Mouse)

Ersoy BA, Maner-Smith KM, Li Y et al. Thioesterase-mediated control of cellular calcium homeostasis enables hepatic ER stress. *J. Clin. Invest.* 2017-11-20 [PMID: 29202465] (WB, Mouse)

Conlon DM, Thomas T, Fedotova T et al. Inhibition of apolipoprotein B synthesis stimulates endoplasmic reticulum autophagy that prevents steatosis. *J Clin Invest* 2016-09-06 [PMID: 27599291] (IB)

Jiang L, Xu L, Song Y et al. CaMK II/CREB/Wnt/beta-catenin signaling cascade regulates Angiotensin II-induced podocyte injury and albuminuria. *J Biol Chem* 2013-06-26 [PMID: 23803607] (WB, Mouse)





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