abcam

Product datasheet

Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free ab227108

重组 RabMAb

★★★★★ 1 Abreviews 1 References 8 图像

概述

产品名称	Anti-CaMKII抗体[EPR6686(2)] - BSA and Azide free
描述	兔单克隆抗体[EPR6686(2)] to CaMKII - BSA and Azide free
宿主	Rabbit
特异性	The immunogen shares 100% homology with CaMK2 beta, 93% homology with CaMK2 gamma and 73% homology with CaMK2 alpha and delta.The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
经测试应用	**适用于:** Flow Cyt (Intra), ICC/IF, IHC-P, WB **不适用于:** IP
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	Human fetal brain and HeLa lysates; Human brain tissue; U87-MG cells. ICC/IF: Differentiated Neuro-2A.
常规说明	ab227108 is the carrier-free version of **ab134041**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

性能

形式	Liquid

存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
存储溶液	pH: 7.20 Constituent: PBS
无载体	**是**
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR6686(2)
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab227108于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

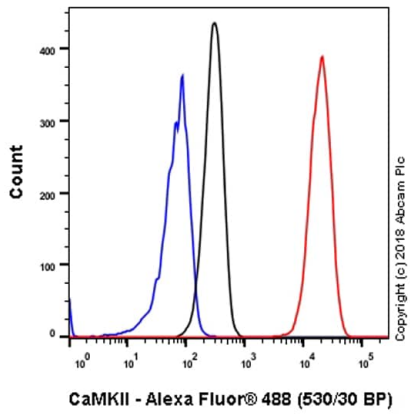
应用	Ab评论	说明
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration.
IHC-P	★★★★★ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 54 kDa.

应用说明 Is unsuitable for IP.

靶标

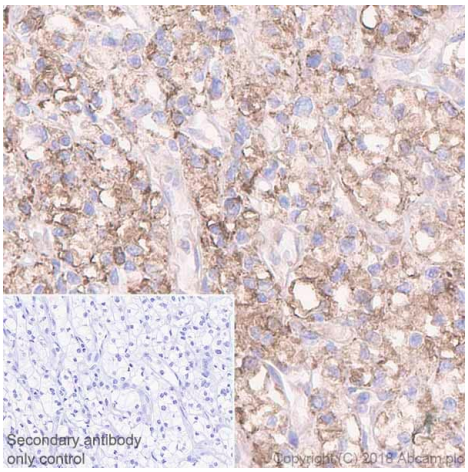
功能	CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity.
序列相似性	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 1 protein kinase domain.
细胞定位	Cell junction > synapse > presynaptic cell membrane. Cell junction > synapse. Postsynaptic lipid rafts.

图片



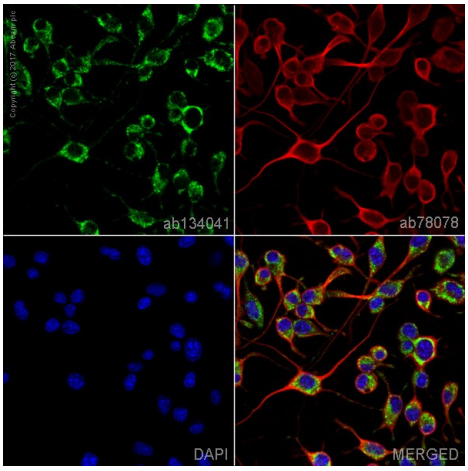
Flow Cytometry (Intracellular) - Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

Intracellular Flow Cytometry analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling CaMKII with purified **ab134041** at 1/70 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab134041**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human clear cell cancer of kidney tissue sections labeling CaMKII with Purified **ab134041** at 1:500 dilution (1.5 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0)ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody.Negative control:PBS instead of the primary antibody.Hematoxylinwas used as a counterstain
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab134041**).

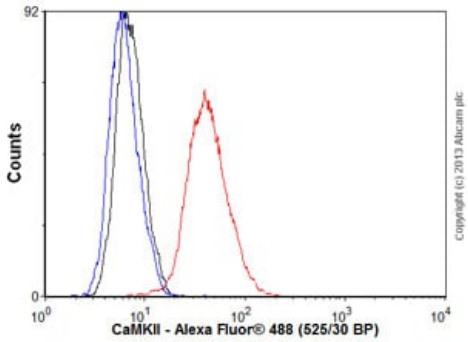


Immunocytochemistry/ Immunofluorescence - Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

ab134041 staining CaMKII in Neuro-2A cells. The cells were differentiated with 20µM Trans-retinoic acid and serum starved (0.1%FBS/DMEM) for 48hours. They were then fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at +4°C with purified **ab134041** at a 5µg/ml concentration and **ab78078**, Mouse monoclonal [2G10] to beta III Tubulin, at 5µg/ml concentration, followed by a further incubation at room temperature for 1h with an anti-rabbit AlexaFluor® 488 (**ab150081**) at 2 µg/ml (shown in green) and an anti-mouse AlexaFluor® 594 (**ab150120**) at 2 µg/ml (shown in pseudocolor red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

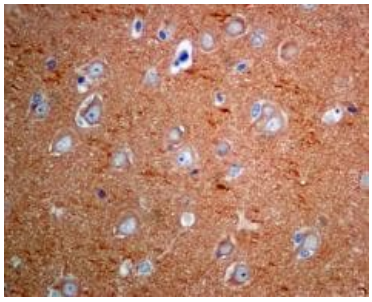
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab134041**).



Flow Cytometry (Intracellular) - Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

Overlay histogram showing SH-SY5Y cells stained with **ab134041** (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (unpurified **ab134041**, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (**ab150077**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in SH-SY5Y cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab134041**).

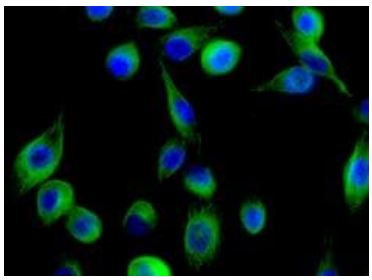


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

Immunohistochemical analysis of paraffin-embedded Human brain tissue labelling CaMKII with unpurified **ab134041** at 1/250 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab134041**).

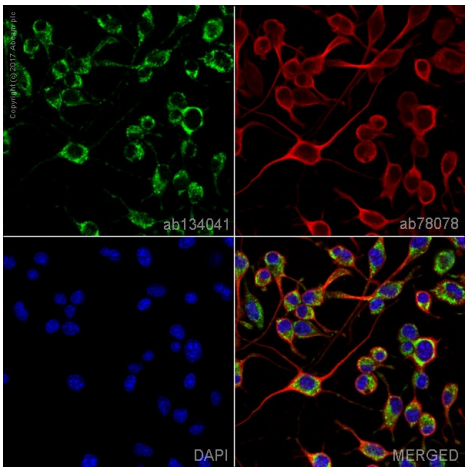
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

Immunofluorescent analysis of U87-MG cells labelling CaMKII with unpurified **ab134041** at 1/250 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab134041**).

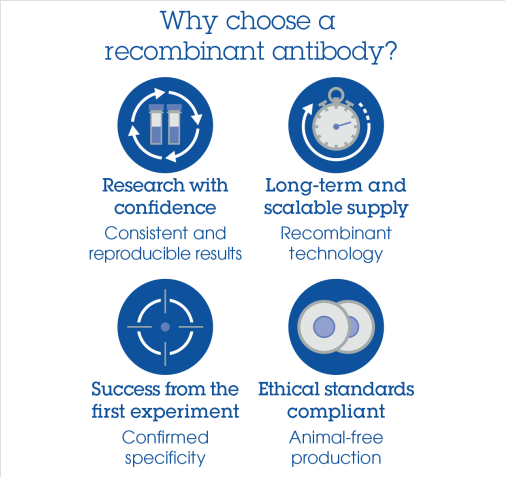


Immunocytochemistry/ Immunofluorescence - Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

This ICC/IF data was generated using the same anti-CaMKII antibody clone, EPR6686(2), in a different buffer formulation (cat# **ab134041**).

ab134041 staining CaMKII in Neuro-2A cells. The cells were differentiated with 20µM Trans-retinoic acid and serum starved (0.1%FBS/DMEM) for 48hours. They were then fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at +4°C with **ab134041** at a 5µg/ml concentration and **ab78078**, Mouse monoclonal [2G10] to beta III Tubulin, at 5µg/ml concentration, followed by a further incubation at room temperature for 1h with an anti-rabbit AlexaFluor® 488 (**ab150081**) at 2 µg/ml (shown in green) and an anti-mouse AlexaFluor® 594 (**ab150120**) at 2 µg/ml (shown in pseudocolor red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Anti-CaMKII antibody [EPR6686(2)] - BSA and Azide free (ab227108)

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