abcam

ab201966

Anti-CamKII gamma antibody [8G10C1]

KO Validated

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human CAMK2G aa 300-500. The exact immunogen used to generate this antibody is proprietary information. Database link Q13555
Clone number	8G10C1
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400

Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Rat
Dilution info	1/500 - 1/2000
Notes	-

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information CAMK2G

Function	Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in sarcoplasmic reticulum Ca(2+) transport in skeletal muscle and may function in dendritic spine and synapse formation and neuronal plasticity (PubMed:16690701). In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca(2+) transport and in fast-twitch muscle participates in the control of Ca(2+) release from the SR through phosphorylation of the ryanodine receptor-coupling factor triadin (PubMed:16690701). In the central nervous system, it is involved in the regulation of neurite formation and arborization (PubMed:30184290). It may participate in the promotion of dendritic spine and synapse formation and maintenance of synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK-STAT signaling pathway (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

This product was changed from ascites to supernatant. Lot no's high than GR280299-5 are from Tissue Culture Supernatant

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

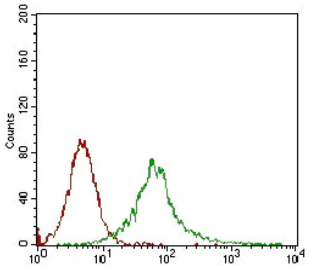
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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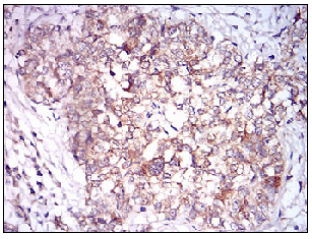
8 product images



Flow Cytometry - Anti-CamKII gamma antibody [8G10C1] (ab201966)

CamKII gamma Flow Cytometry staining using mouse Anti-CamKII gamma antibody

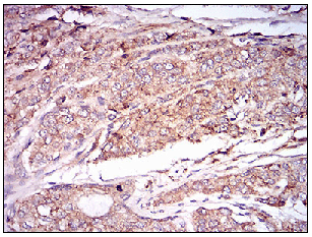
Flow cytometric analysis of Jurkat cells labeling CamKII gamma with ab201966 at 1/200 dilution (green). Negative control (red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CamKII gamma antibody [8G10C1] (ab201966)

CamKII gamma Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CamKII gamma antibody

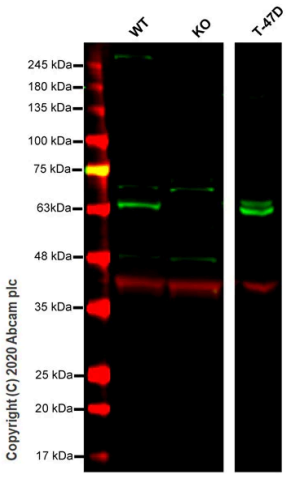
Immunohistochemical analysis of paraffin-embedded human bladder cancer tissue labeling CamKII gamma with ab201966 at 1/200 dilution followed by DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CamKII gamma antibody [8G10C1] (ab201966)

CamKII gamma Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CamKII gamma antibody

Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue labeling CamKII gamma with ab201966 at 1/200 dilution followed by DAB staining.



Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966)

CamKII gamma Western blot staining using mouse Anti-CamKII gamma antibody

Lanes 1-3: Merged signal (red and green). Green - ab201966 observed at 63 kDa. Red - loading control, ab181602 observed at 37 kDa.
ab201966 Anti-CamKII gamma antibody [8G10C1] was shown to specifically react with CamKII gamma in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab264712 (knockout cell lysate ab258340) was used. Wild-type and CamKII gamma knockout samples were subjected to SDS-PAGE. ab201966 and Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) were incubated overnight at 4°C at 1 in 500 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (ab216772) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (ab216777) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966) at 1/500 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

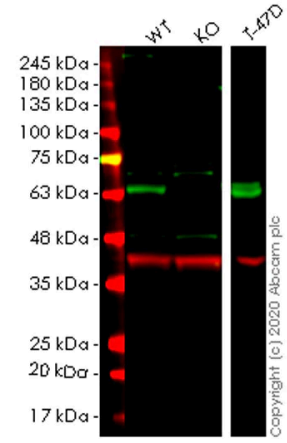
Lane 2:
CAMK2G knockout HeLa cell lysate at 20 µg

Lane 3:
T-47D cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 63 kDa

Observed band size: 63 kDa



Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966)

CamKII gamma Western blot staining using mouse Anti-CamKII gamma antibody

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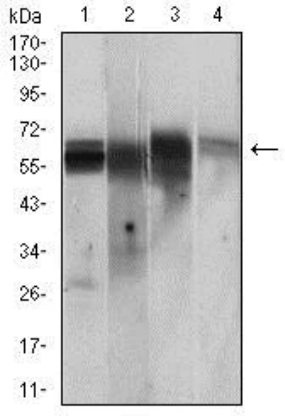
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CAMK2G knockout HeLa cell lysate at 20 µg

Lane 3:
T-47D cell lysate at 20 µg

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Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966)

All lanes:
Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966) at 1/500 dilution

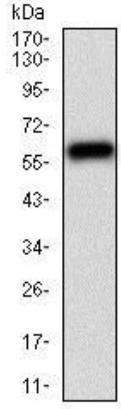
Lane 1:
PC12 cell lysate

Lane 2:
Jurkat cell lysate

Lane 3:
T47D cell lysate

Lane 4:
HepG2 cell lysate

Predicted band size: 63 kDa

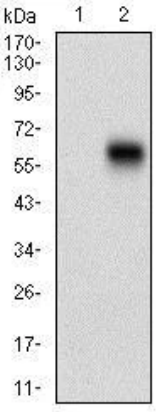


Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966)

(Expected MW is 44 kDa)
All lanes:
Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966) at 1/500 dilution

All lanes:
Human recombinant CamKII gamma (aa322-481) protein

Predicted band size: 63 kDa



Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966)

All lanes:
Western blot - Anti-CamKII gamma antibody [8G10C1] (ab201966) at 1/500 dilution

Lane 1:
HEK293 cell lysate

Lane 2:
Human recombinant CamKII gamma (aa322-481)-hIgGFc transfected HEK293 cell lysate

Predicted band size: 63 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.