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CAMK1G (CaMKI gamma) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7253b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96NX5
Other Accession	NP_065172
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	53087
Antigen Region	420-450

Additional Information

Gene ID	57172
Other Names	Calcium/calmodulin-dependent protein kinase type 1G, CaM kinase I gamma, CaM kinase IG, CaM-KI gamma, CaMKI gamma, CaMKIG, CaMK-like CREB kinase III, CLICK III, CAMK1G, CLICK3, VWS1
Target/Specificity	This CAMK1G (CaMKI gamma) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 420-450 amino acids from the C-terminal region of human CAMK1G (CaMKI gamma).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CAMK1G (CaMKI gamma) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CAMK1G
Synonyms	CLICK3, VWS1
Function	Calcium/calmodulin-dependent protein kinase belonging to a proposed

	calcium-triggered signaling cascade. In vitro phosphorylates transcription factor CREB1 (By similarity).
Cellular Location	Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein
Tissue Location	Mainly expressed in brain with small amounts in skeletal muscles, kidney, spleen and liver. Strongly expressed in forebrain neocortex, striatum and limbic system

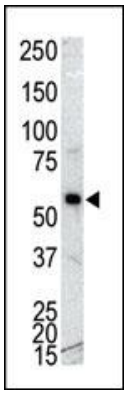
Background

Ca2+/calmodulin-dependent protein kinase I (CaMKI) constitutes a family of closely related isoforms (alpha, beta and gamma). CLICK-III/CaMKIgamma is a novel membrane-anchored neuronal Ca2+/calmodulin-dependent protein kinase. AMKIgamma is abundant in neurons, particularly in the amygdala and ventromedial hypothalamus. Like the other CaMKI isoforms, full activation of CLICK-III/CaMKIgamma requires both Ca(2+)/CaM and phosphorylation by CaMKK.

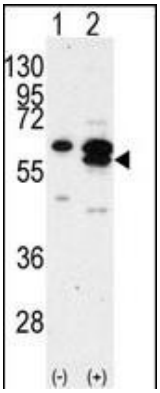
References

Takemoto-Kimura, S., et al., J. Biol. Chem. 278(20):18597-18605 (2003).
Schutte, B.C., et al., Genome Res. 10(1):81-94 (2000).

Images

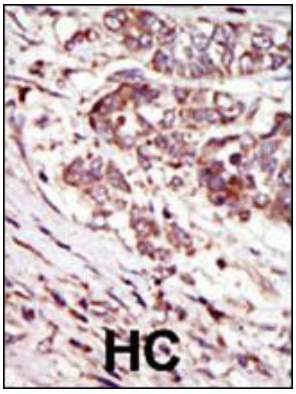


Western blot analysis of anti-CAMK 1G Pab (Cat. #AP7253b) in NCI-H460 cell lysate. CAMK 1G (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Western blot analysis of CAMK1G (arrow) using rabbit polyclonal CAMK1G Antibody (C-term) (RB01249). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CAMK1G gene (Lane 2) (Origene Technologies).

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma;



HC = hepatocarcinoma.

Citations

- Splice variant specific increase in Ca2+/calmodulin-dependent protein kinase 1-gamma mRNA expression in response to acute pyrethroid exposure.