

# CaMKI $\gamma$ (10G8): sc-134296

## BACKGROUND

The Ca<sup>2+</sup>/calmodulin-dependent protein kinases (CaMKs) comprise a structurally related subfamily of serine/threonine kinases. CaMKI $\gamma$  (calcium/calmodulin-dependent protein kinase I $\gamma$ ), also known as VWS1 or CLICKIII, is a 476 amino acid protein that localizes to both the cytoplasm and to the membrane of the Golgi apparatus and contains one protein kinase domain. Expressed predominately in brain and present at lower levels in spleen, liver, kidney and skeletal muscle, CaMKI $\gamma$  functions as a Ca<sup>2+</sup>/calmodulin-dependent protein kinase that uses ATP to catalyze the phosphorylation of target proteins, such as the transcription factor CREB-1. CaMKI $\gamma$  exists as multiple alternatively spliced isoforms and is encoded by a gene which maps to human chromosome 1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CAMK1G (human) mapping to 1q32.2; Camk1g (mouse) mapping to 1 H6.

## SOURCE

CaMKI $\gamma$  (10G8) is a mouse monoclonal antibody raised against recombinant CaMKI $\gamma$  protein of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CaMKI $\gamma$  (10G8) is recommended for detection of CaMKI $\gamma$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CaMKI $\gamma$  siRNA (h): sc-88278, CaMKI $\gamma$  siRNA (m): sc-105179, CaMKI $\gamma$  shRNA Plasmid (h): sc-88278-SH, CaMKI $\gamma$  shRNA Plasmid (m): sc-105179-SH, CaMKI $\gamma$  shRNA (h) Lentiviral Particles: sc-88278-V and CaMKI $\gamma$  shRNA (m) Lentiviral Particles: sc-105179-V.

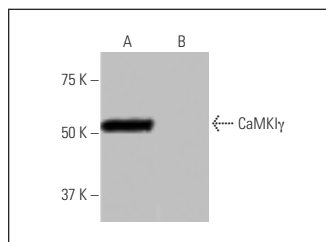
Molecular Weight of CaMKI $\gamma$ : 53 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or human CaMKI $\gamma$  transfected 293T whole cell lysate.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



CaMKI $\gamma$  (10G8): sc-134296. Western blot analysis of CaMKI $\gamma$  expression in human CaMKI $\gamma$  transfected (A) and non-transfected (B) 293T whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.