

CaMKV (2F3-1A2): sc-517082

BACKGROUND

The Ca²⁺/calmodulin-dependent protein kinases (CaMKs) comprise a structurally related subfamily of serine/threonine kinases. CaMKV (CaM kinase-like vesicle-associated), also known as 1G5 or VACAMKL, is a 501 amino acid protein that localizes to cytoplasmic vesicles, as well as to the cell membrane, and contains one protein kinase domain. Although a member of the CaMK family, CaMKV is thought to be catalytically inactive, but it may play a role in vesicle function and nervous system development. Multiple isoforms of CaMKV exist due to alternative splicing events. The gene encoding CaMKV maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan Syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

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- Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
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- Ballif, B.A., et al. 2004. Phosphoproteomic analysis of the developing mouse brain. *Mol. Cell. Proteomics* 3: 1093-1101.
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CHROMOSOMAL LOCATION

Genetic locus: CAMKV (human) mapping to 3p21.31; Camkv (mouse) mapping to 9 F1.

SOURCE

CaMKV (2F3-1A2) is a mouse monoclonal antibody raised against amino acids 1-501 representing full length CaMKV of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CaMKV (2F3-1A2) is recommended for detection of CaMKV of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 CaMKV siRNA (h): sc-78327, CaMKV siRNA (m): sc-141995, CaMKV shRNA Plasmid (h): sc-78327-SH, CaMKV shRNA Plasmid (m): sc-141995-SH, CaMKV shRNA (h) Lentiviral Particles: sc-78327-V and CaMKV shRNA (m) Lentiviral Particles: sc-141995-V.

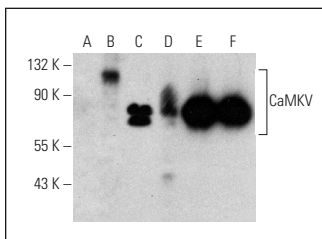
Molecular Weight of CaMKV: 72-80 kDa.

Positive Controls: CaMKV (h3): 293T Lysate: sc-158336, IMR-32 cell lysate: sc-2409 or mouse brain extract: sc-2253.

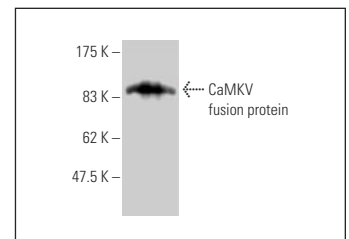
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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



CaMKV (2F3-1A2): sc-517082. Western blot analysis of CaMKV expression in non-transfected 293T: sc-117752 (A), human CaMKV transfected 293T: sc-158336 (B) and IMR-32 (C) whole cell lysates and human brain (D), mouse brain (E) and rat brain (F) tissue extracts.



CaMKV (2F3-1A2): sc-517082. Western blot analysis of human recombinant CaMKV fusion protein.

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 for detailed protocols and support products.