

CaMKI δ (H-67): sc-134638

BACKGROUND

Ca²⁺/calmodulin-dependent protein kinases (CaMKs) comprise a structurally related subfamily of serine/threonine kinases. CaMKI δ (calcium/calmodulin-dependent protein kinase type 1 δ), also known as CKLiK or CaM-K1, is a 385 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one protein kinase domain. Expressed in a variety of tissues with higher expression in polymorphonuclear leukocytes, CaMKI δ functions to catalyze the ATP-dependent phosphorylation of target proteins and is thought to regulate calcium-mediated granulocyte function via a calcium-triggered signaling cascade. CaMKI δ is activated by CaM, which binds to and induces a conformational change in CaMKI δ , thereby allowing CaMKK α and CaMKK β to phosphorylate and, subsequently activate CaMKI δ . Nucleotide polymorphisms in the gene encoding CaMKI δ may increase susceptibility to type 2 diabetes. Two isoforms of CaMKI δ exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: CAMK1D (human) mapping to 10p13; Camk1d (mouse) mapping to 2 A1.

SOURCE

CaMKI δ (H-67) is a rabbit polyclonal antibody raised against amino acids 319-385 mapping at the C-terminus of CaMKI δ of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

CaMKI δ (H-67) is recommended for detection of CaMKI δ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CaMKI δ (H-67) is also recommended for detection of CaMKI δ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CaMKI δ siRNA (h): sc-90716, CaMK1 δ siRNA (m): sc-141991, CaMK1 δ shRNA Plasmid (h): sc-90716-SH, CaMK1 δ shRNA Plasmid (m): sc-141991-SH, CaMK1 δ shRNA (h) Lentiviral Particles: sc-90716-V and CaMK1 δ shRNA (m) Lentiviral Particles: sc-141991-V.

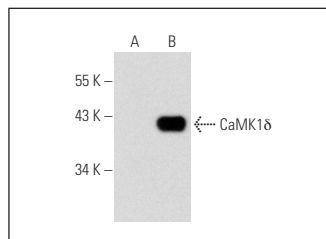
Molecular Weight of CaMKI δ : 40 kDa.

Positive Controls: CaMKI δ (h3): 293T Lysate: sc-115424, Daudi cell lysate: sc-2415 or NCIH460 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CaMKI δ (H-67): sc-134638. Western blot analysis of CaMKI δ expression in non-transfected: sc-117752 (A) and human CaMKI δ transfected: sc-115424 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **CaMKI δ (C-9): sc-374028**, our highly recommended monoclonal alternative to CaMKI δ (H-67).