

# MRCK $\gamma$ (2C3): sc-517148

## BACKGROUND

Protein kinases comprise a large group of encoded factors that regulate cellular processes by catalyzing the transfer of a phosphate group to a hydroxyl acceptor in serine, threonine or tyrosine residues. MRCK $\gamma$  (serine/threonine-protein kinase MRCK  $\gamma$ ), also known as CDC42BPG (CDC42 binding protein kinase  $\gamma$  (DMPK-like)), myotonic dystrophy protein kinase-like  $\alpha$ , DMPK2, HSMDPKIN or KAPPA-200, is a 1,551 amino acid cytoplasmic protein belonging to the protein kinase superfamily. Expressed in skeletal muscle and heart, MRCK $\gamma$  exists as both a homodimer and homotetramer. MRCK $\gamma$  may function as a downstream effector of CDC42 in cytoskeletal reorganization, and is known to regulate the phosphorylation of MYPT1 and MYL2, which is required for actomyosin contractility in cell invasion. MRCK $\gamma$  binds magnesium as a cofactor and strongly associates with GTP-bound CDC42. The gene encoding MRCK $\gamma$  maps to human chromosome 11q13.1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CDC42BPG (human) mapping to 11q13.1.

## SOURCE

MRCK $\gamma$  (2C3) is a mouse monoclonal antibody raised against amino acids 1423-1528 representing partial length MRCK $\gamma$  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

MRCK $\gamma$  (2C3) is recommended for detection of MRCK $\gamma$  of 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).

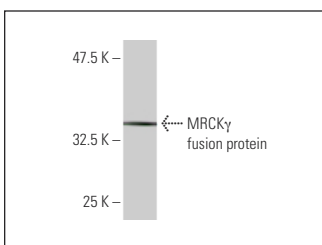
Suitable for use as control antibody for MRCK $\gamma$  siRNA (h): sc-96278, MRCK $\gamma$  shRNA Plasmid (h): sc-96278-SH and MRCK $\gamma$  shRNA (h) Lentiviral Particles: sc-96278-V.

Molecular Weight of MRCK $\gamma$ : 172 kDa.

## 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, 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



MRCK $\gamma$  (2C3): sc-517148. Western blot analysis of human recombinant MRCK $\gamma$  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](http://www.scbt.com) for detailed protocols and support products.