

# MRCK $\beta$ (C-19): sc-15299

## 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. Myotonic dystrophy kinase-related Cdc42-binding (DMPK-like) kinases- $\alpha$  and  $\beta$  (MRCK- $\alpha$ ,  $\beta$ ) contain a cysteine-rich motif and a putative pleckstrin homology domain. MRCKs can phosphorylate nonmuscle myosin light chain and influences actin-myosin contractility. MRCK- $\alpha$  can phosphorylate and activate LIM kinases downstream of Cdc42, which leads to inactivation of ADF/cofilin and to actin cytoskeletal reorganization. MRCK- $\alpha$  can also influence neurite outgrowth promoted by Cdc42 and Rac.

## CHROMOSOMAL LOCATION

Genetic locus: CDC42BPB (human) mapping to 14q32.32; Cdc42bpb (mouse) mapping to 12 F1.

## SOURCE

MRCK $\beta$  (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MRCK $\beta$  of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-15299 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

MRCK $\beta$  (C-19) is recommended for detection of MRCK $\beta$  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)], 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).

MRCK $\beta$  (C-19) is also recommended for detection of MRCK $\beta$  in additional species, including equine, canine and porcine.

Suitable for use as control antibody for MRCK $\beta$  siRNA (h): sc-60064, MRCK $\beta$  siRNA (m): sc-60065, MRCK $\beta$  shRNA Plasmid (h): sc-60064-SH, MRCK $\beta$  shRNA Plasmid (m): sc-60065-SH, MRCK $\beta$  shRNA (h) Lentiviral Particles: sc-60064-V and MRCK $\beta$  shRNA (m) Lentiviral Particles: sc-60065-V.

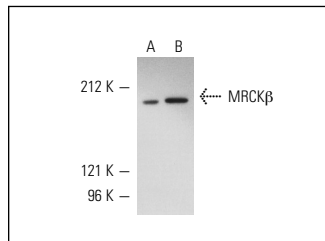
Molecular Weight of MRCK $\beta$ : 190 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

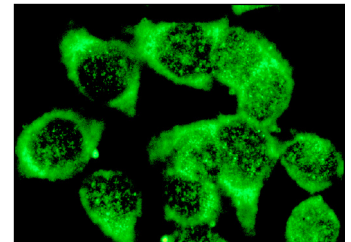
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



MRCK $\beta$  (C-19): sc-15299. Western blot analysis of MRCK $\beta$  expression in HeLa (A) and NIH/3T3 (B) whole cell lysates.



MRCK $\beta$  (C-19): sc-15299. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining.

## SELECT PRODUCT CITATIONS

- Huo, L., et al. 2011. Cdc42-dependent formation of the ZO-1/MRCK $\beta$  complex at the leading edge controls cell migration. EMBO J. 30: 665-667.

## PROTOCOLS

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

**MONOS**  
Satisfaction  
Guaranteed

Try **MRCK $\beta$  (C-12): sc-374597** or **MRCK $\beta$  (A-2): sc-390127**, our highly recommended monoclonal alternatives to MRCK $\beta$  (C-19).