SANTA CRUZ BIOTECHNOLOGY, INC.

MRCKα (H-90): sc-48833

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 α and β (MRCKα, β) contain a cysteine-rich motif and a putative pleckstrin homology domain. MRCKs can phosphorylate nonmuscle myosin light chain and influences actin-myosin contractility. MRCKα can phosphorylate and activate LIM kinases downstream of Cdc42, which leads to inactivation of ADF/Cofilin and actin cytoskeletal reorganization. MRCKα can also influence neurite outgrowth promoted by Cdc42 and Rac.

REFERENCES

1. Hunter, T. 1995. Protein kinases and phosphatases: the yin and yang of protein phosphorylation and signaling. Cell 80: 225-236.
2. Leung, T., Chen, X.Q., Tan, I., Manser, E. and Lim, L. 1998. Myotonic dystrophy kinase-related Cdc42-binding kinase acts as a Cdc42 effector in promoting cytoskeletal reorganization. Mol. Cell. Biol. 18: 130-140.

CHROMOSOMAL LOCATION

Genetic locus: CDC42BPA (human) mapping to 1q42.13; Cdc42b (mouse) mapping to 1 H4.

SOURCE

MRCKα (H-90) is a rabbit polyclonal antibody raised against amino acids 467-556 mapping within an internal region of MRCKα of human origin.

PRODUCT

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

APPLICATIONS

MRCKα (H-90) is recommended for detection of MRCKα 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)], 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).

MRCKα (H-90) is also recommended for detection of MRCKα in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MRCKα siRNA (h): sc-60058, MRCKα siRNA (m): sc-60059, MRCKα shRNA Plasmid (h): sc-60058-SH, MRCKα shRNA Plasmid (m): sc-60059-SH, MRCKα shRNA (h) Lentiviral Particles: sc-60058-V and MRCKα shRNA (m) Lentiviral Particles: sc-60059-V.

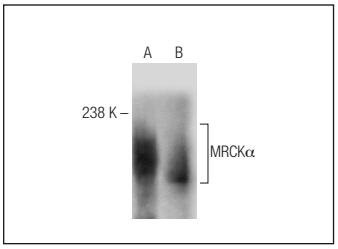
Molecular Weight of MRCKα: 190 kDa.

Positive Controls: rat brain extract: sc-2392, COLO 320DM cell lysate: sc-2226 or mouse brain extract: sc-2253.

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



MRCKα (H-90): sc-48833. Western blot analysis of MRCKα expression in COLO 320DM whole cell lysate (**A**) and mouse brain tissue extract (**B**).

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 or our catalog for detailed protocols and support products.