

# MARK1 (V-17): sc-70090

## BACKGROUND

The microtubule matrix within a cell plays a central role in intracellular transport, cell shape during differentiation and chromosome partitioning during mitosis. During these processes, microtubules transition rapidly between stable and dynamic states. MAP/microtubule affinity-regulating kinase 1 (MARK1) is a 795 amino acid protein belonging to the CaMK Ser/Thr protein kinase family. MARK1 is thought to play a role in the stability of the microtubule matrix of the cytoskeleton. MARK1 is activated by phosphorylation of Thr 215 by LKB1 in complex with STRAD and MO25. Localized to the cytoskeleton, MARK1 contains one kinase-associated (KA1) domain, one protein kinase domain and one UBA domain. Expressed as three isoforms produced by alternative splicing, MARK1 is found with highest levels in brain, skeletal muscle and heart.

## REFERENCES

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- Wissing, J., et al. 2007. Proteomics analysis of protein kinases by target class-selective prefractionation and tandem mass spectrometry. *Mol. Cell. Proteomics* 6: 537-547.
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## CHROMOSOMAL LOCATION

Genetic locus: MARK1 (human) mapping to 1q41; Mark1 (mouse) mapping to 1 H5.

## SOURCE

MARK1 (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MARK1 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.

Blocking peptide available for competition studies, sc-70090 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MARK1 (V-17) is recommended for detection of MARK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MARK1 (V-17) is also recommended for detection of MARK1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MARK1 siRNA (h): sc-75749, MARK1 siRNA (m): sc-75750, MARK1 shRNA Plasmid (h): sc-75749-SH, MARK1 shRNA Plasmid (m): sc-75750-SH, MARK1 shRNA (h) Lentiviral Particles: sc-75749-V and MARK1 shRNA (m) Lentiviral Particles: sc-75750-V.

Molecular Weight of MARK1: 89 kDa.

## 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) 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.

## 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) or our catalog for detailed protocols and support products.