

# MICAL1 (K-13): sc-161856

## BACKGROUND

MICAL1 (microtubule associated monoxygenase, calponin and LIM domain containing 1), also known as MICAL or NICAL, is a 1,067 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains one LIM zinc-binding domain and one calponin-homology domain. Expressed in kidney, thymus, spleen, lung and testis, MICAL1 interacts with the SH3 domain of Cas-L and, via this interaction, is thought to function as a cytoskeletal regulator that connects Cas-L to intermediate filaments. MICAL1 also interacts with Rab 1B, plexin-A3 and Vimentin, further regulating cytoskeletal events and possibly playing a role in axonal repulsion. Three isoforms of MICAL1 exist due to alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MICAL1 (human) mapping to 6q21; Mical1 (mouse) mapping to 10 B1.

## SOURCE

MICAL1 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MICAL1 of human origin.

## STORAGE

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

## 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-161856 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MICAL1 (K-13) is recommended for detection of MICAL1 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); non cross-reactive with MICALCL, MICAL2 or MICAL3.

MICAL1 (K-13) is also recommended for detection of MICAL1 in additional species, including bovine and porcine.

Suitable for use as control antibody for MICAL1 siRNA (h): sc-95537, MICAL1 siRNA (m): sc-149423, MICAL1 shRNA Plasmid (h): sc-95537-SH, MICAL1 shRNA Plasmid (m): sc-149423-SH, MICAL1 shRNA (h) Lentiviral Particles: sc-95537-V and MICAL1 shRNA (m) Lentiviral Particles: sc-149423-V.

Molecular Weight of MICAL1: 118 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Jurkat whole cell lysate: sc-2204 or SK-MEL-28 cell lysate: sc-2236.

## 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.

## 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.



Try **MICAL1 (3D12): sc-293357**, our highly recommended monoclonal alternative to MICAL1 (K-13).