

MICAL1 (C-16): sc-161855

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 testes, 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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2. Suzuki, T., Nakamoto, T., Ogawa, S., Seo, S., Matsumura, T., Tachibana, K., Morimoto, C. and Hirai, H. 2002. MICAL, a novel Cas-L interacting molecule, associates with Vimentin. *J. Biol. Chem.* 277: 14933-14941.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607129. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Weide, T., Teuber, J., Bayer, M. and Barnekow, A. 2003. MICAL1 isoforms, novel Rab 1 interacting proteins. *Biochem. Biophys. Res. Commun.* 306: 79-86.
5. Bayer, M., Fischer, J., Kremerskothen, J., Ossendorf, E., Matanis, T., Konczal, M., Weide, T. and Barnekow, A. 2005. Identification and characterization of Iporin as a novel interaction partner for Rab 1. *BMC Cell Biol.* 6: 15.
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CHROMOSOMAL LOCATION

Genetic locus: MICAL1 (human) mapping to 6q21.

SOURCE

MICAL1 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MICAL1 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-161855 P, (100 µg 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.

APPLICATIONS

MICAL1 (C-16) is recommended for detection of MICAL1 of 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); non cross-reactive with MICALCL, MICAL2 or MICAL3.

MICAL1 (C-16) is also recommended for detection of MICAL1 in additional species, including equine, bovine and porcine.

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

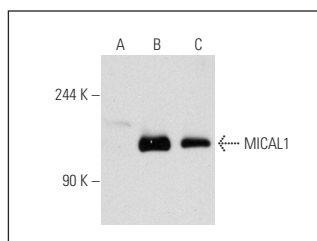
Molecular Weight of MICAL1: 118 kDa.

Positive Controls: MICAL1 (h): 293T Lysate: sc-116300, HL-60 whole cell lysate: sc-2209 or Jurkat whole cell lysate: sc-2204.

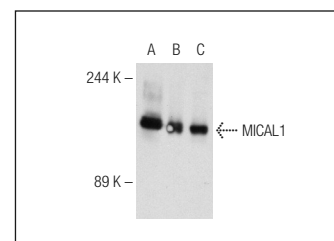
RECOMMENDED SECONDARY REAGENTS

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



MICAL1 (C-16): sc-161855. Western blot analysis of MICAL1 expression in non-transfected 293T: sc-117752 (A), human MICAL1 transfected 293T: sc-116300 (B) and SK-MEL-28 (C) whole cell lysates.



MICAL1 (C-16): sc-161855. Western blot analysis of MICAL1 expression in HL-60 (A), Hs 67 (B) and Jurkat (C) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **MICAL1 (3D12): sc-293357**, our highly recommended monoclonal alternative to MICAL1 (C-16).