MICAL1 (3D12): sc-293357

SANTA CRUZ® BIOTECHNOLOGY

The Power to Question

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 inter-acts 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.

SOURCE

MICAL1 (3D12) is a mouse monoclonal antibody raised against amino acids 971-1067 of MICAL1 of human origin.

PRODUCT

Each vial contains 100 µg IgG$_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MICAL1 (3D12) 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.
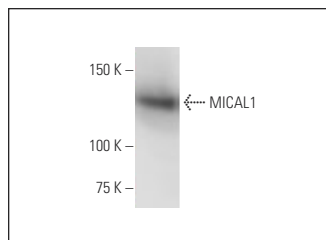
Molecular Weight of MICAL1: 118 kDa.

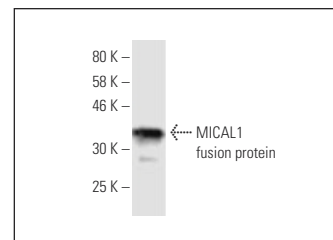Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunopre-cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA

MICAL1 (3D12): sc-293357. Western blot analysis of MICAL1 expression in Jurkat whole cell lysate.

MICAL1 (3D12): sc-293357. Western blot analysis of human recombinant MICAL1 fusion protein.

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 for detailed protocols and support products.