

MICAL3 (3A6): sc-517049

BACKGROUND

MICAL3 (microtubule associated monoxygenase, calponin and LIM domain containing 3), also known as KIAA1364, is a 976 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 ubiquitously, MICAL3 uses FAD as a cofactor to interact with Rab 1B and, via this interaction, is thought to play a role in spermatid development. MICAL3 exists as two alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 22q11.21. Chromosome 22 houses over 500 genes, some of which are involved in Phelan-McDermid syndrome, schizophrenia and Neurofibromatosis type 2.

REFERENCES

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- Hay, B.N. 2007. Deletion 22q11: spectrum of associated disorders. *Semin. Pediatr. Neurol.* 14: 136-139.

CHROMOSOMAL LOCATION

Genetic locus: MICAL3 (human) mapping to 22q11.21; Mical3 (mouse) mapping to 6 F1.

SOURCE

MICAL3 (3A6) is a mouse monoclonal antibody raised against amino acids 251-340 representing partial length MICAL3 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.

STORAGE

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

APPLICATIONS

MICAL3 (3A6) is recommended for detection of MICAL3 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MICAL3 siRNA (h): sc-75783, MICAL3 siRNA (m): sc-149425, MICAL3 shRNA Plasmid (h): sc-75783-SH, MICAL3 shRNA Plasmid (m): sc-149425-SH, MICAL3 shRNA (h) Lentiviral Particles: sc-75783-V and MICAL3 shRNA (m) Lentiviral Particles: sc-149425-V.

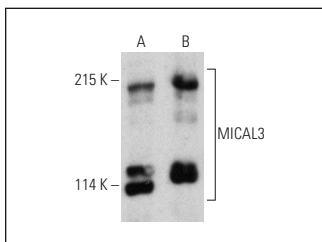
Molecular Weight of MICAL3 isoforms 1-5: 224/107/110/109/121 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185 or C6 whole cell lysate: sc-364373.

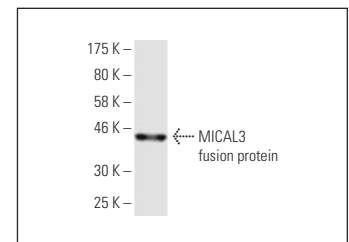
RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



MICAL3 (3A6): sc-517049. Western blot analysis of MICAL3 expression in Neuro-2A (A) and C6 (B) whole cell lysates.



MICAL3 (3A6): sc-517049. Western blot analysis of human recombinant MICAL3 fusion protein.

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.