

Anti-MICAL3 Antibody Picoband®

Catalog Number: A08089

About MICAL3

Microtubule-associated monooxygenase, calponin and LIM domain containing 3, also known as MICAL3, is a human gene. MICAL3 (microtubule associated monooxygenase, 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.

Overview

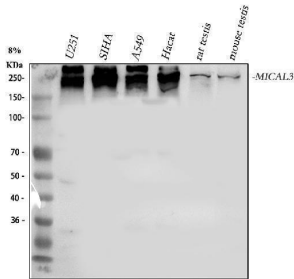
Product Name	Anti-MICAL3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MICAL3 Antibody Picoband® catalog # A08089. Tested in WB, FCM, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q7RTP6

Technical Details

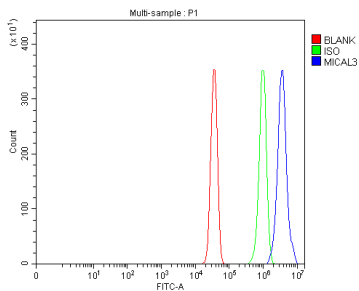
Immunogen	E.coli-derived human MICAL3 recombinant protein (Position: K458-L1592). Human MICAL3 shares 81.9% amino acid (aa) sequence identity with mouse MICAL3.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

Anti-MICAL3 Antibody Picoband® (A08089) Images



Western blot analysis of MICAL3 using anti-MICAL3 antibody (A08089). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human U251 whole cell lysates, Lane 2: human SiHa whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human Hacat whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: mouse testis tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MICAL3 antigen affinity purified polyclonal antibody (Catalog # A08089) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MICAL3 at approximately 224-280 kDa. The expected band size for MICAL3 is at 224 kDa.



Flow Cytometry analysis of U251 cells using anti-MICAL3 antibody (A08089). Overlay histogram showing U251 cells stained with A08089 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MICAL3 Antibody (A08089, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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Anti-MICAL3 Antibody

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