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[Marker Primary Antibody]

Rabbit Anti-MICAL2/FITC Conjugated antibody

Catalog Number: SL18933R-FITC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-MICAL2/FITC
Immunogen:	KLH conjugated synthetic peptide derived from human MICAL2
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 ICC/IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted:Human,Mouse,Rat,Rabbit)
Background:	background: MICAL2 is a 1,124 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains one LIM zinc-binding domain and one calponin-homology domain. Using FAD as a cofactor, MICAL2 interacts with Rab 1B, plexin-A4 and Vimentin and, via these interactions, may play a role in cytoskeletal regulation, specifically at intermediate filaments. MICAL2, which exists as two alternatively spliced isoforms, is expressed at high levels in heart and brain and at lower levels in ovary, skeletal muscle, liver, testis and kidney tissue. **Function:** Nuclear monooxygenase that promotes depolymerization of F-actin by mediating oxidation of specific methionine residues on actin and regulates the SRF signaling. Acts by modifying nuclear actin subunits through the addition of oxygen to form methionine-sulfoxide, leading to promote actin filament severing and prevent repolymerization. Acts as a key regulator of the SRF signaling pathway elicited by nerve growth factor and serum: mediates

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	oxidation and subsequent depolymerization of nuclear actin, leading to increase MKL1/MRTF-A presence in the nucleus and promote SRF:MKL1/MRTF-A-dependent gene transcription. Does not activate SRF:MKL1/MRTF-A through RhoA. **Subunit:** Interacts with VIM and PLXNA4 By similarity. Interacts with RAB1B. **Subcellular Location:** Cytoplasm; Nucleus; cytoskeleton. **Similarity:** Belongs to the Mical family. Contains 1 CH (calponin-homology) domain. Contains 1 LIM zinc-binding domain. **Database links:** **Entrez Gene:** 534041 Cow **Entrez Gene:** 476858 Dog **Entrez Gene:** 9645 Human **Entrez Gene:** 320878 Mouse **Entrez Gene:** 365352 Rat Omim: 608881 Human **SwissProt:** F1MF74 Cow **SwissProt:** O94851 Human **SwissProt:** Q8BML1 Mouse Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.