

Rabbit Anti-MICAL2/AP Conjugated antibody

SL18933R-AP

Product Name	Anti-MICAL2/AP
Chinese Name	碱性磷酸酶（AP）标记的黄素蛋白氧化还原酶 MICAL2 抗体
Alias	flavoprotein oxidoreductase MICAL2; KIAA0750; MICAL2PV1; MICAL2PV2; microtubule associated monooxygenase, calponin and LIM domain containing 2; Molecule interacting with CasL protein 2; Protein-methionine sulfoxide oxidase MICAL2.
Research Area	Cell biology immunology Cytoskeleton
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:Human,Mouse,Rat,Rabbit) IHC-P=1:100-500,IHC-F=1:100-500,ELISA=1:500-5000
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	127kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human MICAL2
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. 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.
Storage	
Product Detail	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 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.