

MICAL3 Rabbit pAb

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Catalog # AP57316

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q7RTP6
Predicted	Rat, Pig, Dog, Human, Mouse, Rabbit, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	224295
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MICAL3
Epitope Specificity	21-120/2002
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MICAL3 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 22. Chromosome 22 houses over 500 genes, some of which are involved in Phelan-McDermid syndrome, schizophrenia and Neurofibromatosis type 2.

Additional Information

Gene ID	57553
Other Names	[F-actin]-monooxygenase MICAL3, 1.14.13.225, Molecule interacting with CasL protein 3, MICAL-3, MICAL3, KIAA0819, KIAA1364
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MICAL3
Synonyms	KIAA0819, KIAA1364
Function	Monooxygenase that promotes depolymerization of F-actin by mediating oxidation of specific methionine residues on actin to form methionine-sulfoxide, resulting in actin filament disassembly and preventing repolymerization. In the absence of actin, it also functions as a NADPH oxidase producing H ₂ O ₂ . Seems to act as Rab effector protein and plays a role in vesicle trafficking. Involved in exocytic vesicles tethering and fusion: the monooxygenase activity is required for this process and implicates RAB8A associated with exocytotic vesicles. Required for cytokinesis. Contributes to stabilization and/or maturation of the intercellular bridge independently of its monooxygenase activity. Promotes recruitment of Rab8 and ERC1 to the intercellular bridge, and together these proteins are proposed to function in timely abscission.
Cellular Location	Cytoplasm. Cytoplasm, cell cortex. Cytoplasm, cytoskeleton. Nucleus. Midbody Cytoplasm, cytoskeleton, spindle Cytoplasm, cytoskeleton, cilium basal body. Note=Mainly localizes in the nucleus
Tissue Location	Ubiquitous..

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.