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MICALL2/JRAB Rabbit pAb

Catalog # AP99952

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8IY33
Other Accession	Q8IY33
Reactivity	Rat
Predicted	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	97502
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MICALL2/JRAB
Epitope Specificity	741-840/904
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 CH (calponin-homology) domain. Contains 1 LIM zinc-binding domain.
SUBUNIT	Interacts with RAB13 (GTP-bound form); competes with RAB8A and is involved in tight junctions assembly. Interacts with RAB8A; competes with RAB13 and is involved in E-cadherin endocytic recycling By similarity. Interacts with RAB8B By similarity. Interacts (preferentially in opened conformation) with ACTN1 and ACTN4; stimulated by RAB13 activation By similarity. Interacts (via CH domain) with the filamins FLNA, FLNB and FLNC (via actin-binding domain).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	JRAB is a 904 amino acid protein with one CH (calponin-homology) domain and one LIM zinc-binding domain. JRAB has been shown to interact with Rab13 and Rab8 to facilitate cellular transport of claudin-1, occludin, and E-cadherin. This interaction is vital for the coordination of the assembly of tight junctions (TJs) and adherens junctions (AJs). Dynamic turnover (endocytic recycling) of cell-to-cell AJs and TJs is essential for epithelial morphogenesis during normal development and differentiation. The endocytic recycling of occludin and cluadin proteins is part of an ongoing process of restructuring and maintaining cell junctions, especially at TJs. JRAb and Rab13 have also been implicated in the carcinoma metastasis event of epithelial cell scattering. This event shows Rab13 and JRAB colocalizing with F-Actin in lamellipodial structures prior to cell scattering.

Additional Information

Gene ID	79778
Other Names	JRAB; MICAL-L2; MILK2_HUMAN; MICALL2; Junctional Rab13-binding protein;

	Molecule interacting with CasL-like 2 (MICAL-L2); MICAL like 2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	MICALL2 (HGNC:29672)
Synonyms	JRAB
Function	Effector of small Rab GTPases which is involved in junctional complexes assembly through the regulation of cell adhesion molecules transport to the plasma membrane and actin cytoskeleton reorganization. Regulates the endocytic recycling of occludins, claudins and E-cadherin to the plasma membrane and may thereby regulate the establishment of tight junctions and adherens junctions. In parallel, may regulate actin cytoskeleton reorganization directly through interaction with F-actin or indirectly through actinins and filamins. Most probably involved in the processes of epithelial cell differentiation, cell spreading and neurite outgrowth (By similarity). Undergoes liquid-liquid phase separation to form tubular recycling endosomes. Plays 2 sequential roles in the biogenesis of tubular recycling endosomes: first organizes phase separation and then the closed form formed by interaction with RAB8A promotes endosomal tubulation (By similarity).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q3TN34}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q3TN34}. Cell junction, tight junction {ECO:0000250|UniProtKB:Q3TN34}. Recycling endosome {ECO:0000250|UniProtKB:Q3TN34}. Cell projection {ECO:0000250|UniProtKB:Q3TN34}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q3TN34}

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