10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RALBP1 Recombinant Rabbit mAb

Catalog # AP100008

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q15311
Other Accession	Q15311
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	76063
Physical State	Liquid
Immunogen	A synthesized peptide derived from human RalBP1
Epitope Specificity	200-265/655
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Contains 1 Rho-GAP domain.
SUBUNIT	Interacts with the GTP-bound form of RALA, RALB, CDC42 and RAC1. Interacts with REPS1 and REPS2 and this does not affect the Ral-binding activity. Interacts with DAB2IP. Interacts with catalytically active CCNB1 and CDK1 during mitosis. Interacts with EPN1, NUMB and TFAP2A during interphase and mitosis.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Multifunctional protein that functions as a downstream effector of RALA and RALB.As a GTPase-activating protein/GAP can inactivate CDC42 and RAC1 by stimulating their GTPase activity.As part of the Ral signaling pathway, may also regulate ligand-dependent EGF and insulin receptors-mediated endocytosis.

Additional Information

Gene ID	10928
Other Names	RIP1; RLIP1; RLIP76; RBP1_HUMAN; RALBP1; 76 kDa Ral-interacting protein; Dinitrophenyl S-glutathione ATPase (DNP-SG ATPase); Ral-interacting protein 1; RLIP; RBP1_MOUSE; RBP1_RAT; Cytocentrin; ralA binding protein 1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,Flow-Cyt=1:50-100,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	RALBP1 (HGNC:9841)
Function	Multifunctional protein that functions as a downstream effector of RALA and RALB (PubMed:7673236). As a GTPase-activating protein/GAP can inactivate CDC42 and RAC1 by stimulating their GTPase activity (PubMed:7673236). As part of the Ral signaling pathway, may also regulate ligand-dependent EGF and insulin receptors-mediated endocytosis (PubMed:10910768, PubMed:12775724). During mitosis, may act as a scaffold protein in the phosphorylation of EPSIN/EPN1 by the mitotic kinase cyclin B-CDK1, preventing endocytosis during that phase of the cell cycle (PubMed:12775724). During mitosis, also controls mitochondrial fission as an effector of RALA (PubMed:21822277). Recruited to mitochondrion by RALA, acts as a scaffold to foster the mitotic kinase cyclin B-CDK1-mediated phosphorylation and activation of DNM1L (PubMed:21822277).
Cellular Location	Cell membrane; Peripheral membrane protein. Cytoplasm, cytosol Cytoplasm, cytoskeleton, spindle pole {ECO:0000250|UniProtKB:Q62796} Nucleus. Mitochondrion. Note=Cytosolic protein that transiently associates with the mitotic spindle poles in early prophase, and dissociates from them after completion of mitosis (By similarity) Targeted to the plasma membrane through its interaction with RALB, directed by FGF signaling. Docking on the membrane is required to transduce the Ral signal (By similarity). Recruited by RALA to the mitochondrion during mitosis where it regulates mitochondrial fission (PubMed:21822277). Nuclear localization is cell cycle dependent while membrane localization is seen in adherent cells (PubMed:22319010). The region involved in membrane association could form transmembrane domains and expose a part of the protein extracellularly (Probable) {ECO:0000250|UniProtKB:Q62796, ECO:0000250|UniProtKB:Q9PT60, ECO:0000269|PubMed:21822277, ECO:0000269|PubMed:22319010, ECO:0000305|PubMed:15610018}
Tissue Location	Expressed ubiquitously but at low levels. Shows a strong expression in the erythrocytes.

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