

KD-Validated Anti-RaIA Binding Protein 1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1632

Specification

KD-Validated Anti-RaIA Binding Protein 1 Rabbit Monoclonal Antibody - Product Information

Application	WB, FC, ICC
Primary Accession	Q15311
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 76 kDa , observed , 95 kDa KDa
Gene Name	RALBP1
Aliases	RaIA Binding Protein 1; RLIP76; RIP1; Dinitrophenyl S-Glutathione ATPase; 76 KDa Ral-Interacting Protein; Ral-Interacting Protein 1; RaIA-Binding Protein 1; DNP-SG ATPase; RLIP1; RIP; EC 7.6.2.2; EC 7.6.2.3; RalBP1; RLIP
Immunogen	A synthesized peptide derived from human RALBP1

KD-Validated Anti-RaIA Binding Protein 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID **10928**

Other Names

RaIA-binding protein 1, 76 kDa Ral-interacting protein, Dinitrophenyl S-glutathione ATPase, DNP-SG ATPase, 7.6.2.2, 7.6.2.3, Ral-interacting protein 1, RALBP1 (HGNC:9841)

KD-Validated Anti-RaIA Binding Protein 1 Rabbit Monoclonal Antibody - 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

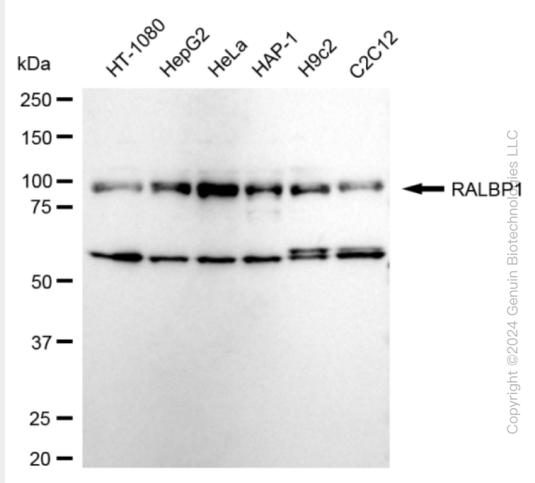
Expressed ubiquitously but at low levels. Shows a strong expression in the erythrocytes.

KD-Validated Anti-RalA Binding Protein 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

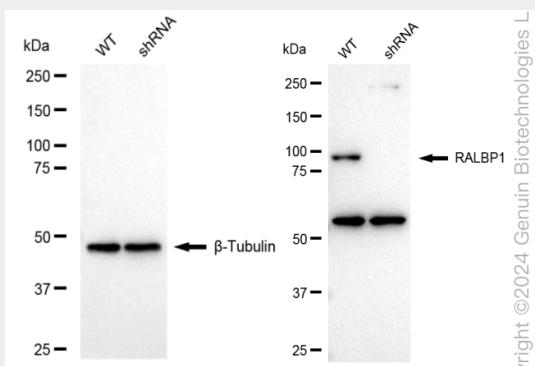
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-RalA Binding Protein 1 Rabbit Monoclonal Antibody - Images



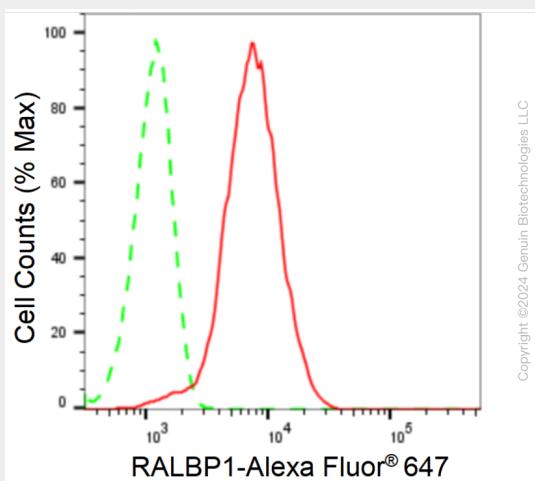
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Western blotting analysis using anti-RALBP1 antibody (Cat#AGI1632). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-RALBP1 antibody (Cat#AGI1632, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



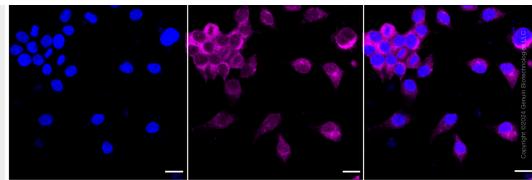
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Western blotting analysis using anti-RALBP1 antibody (Cat#AGI1632). RALBP1 expression in wild type (WT) and RALBP1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-RALBP1 antibody (Cat#AGI1632, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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Flow cytometric analysis of RALBP1 expression in HeLa cells using RALBP1 antibody (Cat#AGI1632, 1:2,000). Green, isotype control; red, RALBP1.



Immunocytochemical staining of HeLa cells with anti-RALBP1 antibody (Cat#AGI1632, 1:1,000). Nuclei were stained blue with DAPI; RALBP1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μ m.