

# RALA Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2092a

## Product Information

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<b>Application</b>	WB, IHC, FC, ICC, E
<b>Primary Accession</b>	<a href="#">P11233</a>
<b>Reactivity</b>	Human, Mouse, Monkey
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	4G8C7
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	23567
<b>Description</b>	The product of this gene belongs to the small GTPase superfamily, Ras family of proteins. GTP-binding proteins mediate the transmembrane signaling initiated by the occupancy of certain cell surface receptors. This gene encodes a low molecular mass ras-like GTP-binding protein that shares about 50% similarity with other ras proteins.
<b>Immunogen</b>	Purified recombinant fragment of human RALA (AA: 71-203) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	5898
<b>Other Names</b>	Ras-related protein Ral-A, RALA, RAL
<b>Dilution</b>	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	RALA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	RALA
<b>Synonyms</b>	RAL

## Function

Multifunctional GTPase involved in a variety of cellular processes including gene expression, cell migration, cell proliferation, oncogenic transformation and membrane trafficking. Accomplishes its multiple functions by interacting with distinct downstream effectors (PubMed:[18756269](#), PubMed:[19306925](#), PubMed:[20005108](#), PubMed:[21822277](#), PubMed:[30500825](#)). Acts as a GTP sensor for GTP-dependent exocytosis of dense core vesicles. The RALA-exocyst complex regulates integrin-dependent membrane raft exocytosis and growth signaling (PubMed:[20005108](#)). Key regulator of LPAR1 signaling and competes with GRK2 for binding to LPAR1 thus affecting the signaling properties of the receptor. Required for anchorage- independent proliferation of transformed cells (PubMed:[19306925](#)). During mitosis, supports the stabilization and elongation of the intracellular bridge between dividing cells. Cooperates with EXOC2 to recruit other components of the exocyst to the early midbody (PubMed:[18756269](#)). During mitosis, also controls mitochondrial fission by recruiting to the mitochondrion RALBP1, which mediates the phosphorylation and activation of DNM1L by the mitotic kinase cyclin B- CDK1 (PubMed:[21822277](#)).

## Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Cleavage furrow. Midbody, Midbody ring. Mitochondrion. Note=Predominantly at the cell surface in the absence of LPA. In the presence of LPA, colocalizes with LPAR1 and LPAR2 in endocytic vesicles (PubMed:[19306925](#)). May colocalize with CNTRL/centriolin at the midbody ring (PubMed:[16213214](#)). However, localization at the midbody at late cytokinesis was not confirmed (PubMed:[18756269](#)). Relocalizes to the mitochondrion during mitosis where it regulates mitochondrial fission (PubMed:[21822277](#)).

## References

1.Cell Signal. 2012 Jun;24(6):1134-40.2.Int J Immunopathol Pharmacol. 2009 Jul-Sep;22(3):735-43.

## Images

