RRAGA/B Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	RRAGA/B, Polyclonal Antibody
Full Product Name	RRAGA/B Conjugated Antibody
Product Gene Name	anti-RRAGA/B antibody
Product Synonym Names	Ras-related GTP-binding protein A; Rag A; RagA; Adenovirus E3 14.7 kDa-interacting protein 1; FIP-1
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Specificity	The antibody detects endogenous levels of total RRAGA/B protein.
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	34
3D Structure	ModBase 3D Structure for Q7L523
Immunogen	Synthesized peptide derived from internal of human RRAGA/B.
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-RRAGA/B antibody	Most Applications
Application Notes for anti-RRAGA/B antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000
Related Product Information for anti-RRAGA/B antibody	Guanine nucleotide-binding protein forming heterodimeric Rag complexes required for the amino acid-induced relocalization of mTORC1 to the lysosomes and its subsequent activation by the GTPase RHEB. This is a crucial step in the activation of the TOR signaling cascade by amino acids. Involved in the RCC1/Ran-GTPase pathway. May play a direct role in a TNF-alpha signaling pathway leading to induction of cell death. May alternatively act as a cellular target for adenovirus E3-14.7K, an inhibitor of TNF-alpha functions, thereby affecting cell death.
Other Notes	Small volumes of anti-RRAGA/B antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RRAGA/B purchase	MBS9445701 is an antibody targeting RRAGA/B. Also known as RRAGA/B Conjugated Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RRAGA/B. It may not necessarily be applicable to this product.

NCBI GI #	74759007
NCBI GeneID	10670
UniProt Primary Accession #	Q7L523
UniProt Secondary Accession #	Q5VZM2
UniProt Related Accession #	Q7L523
NCBI Official Full Name	Ras-related GTP-binding protein A
NCBI Official Synonym Full Names	Ras related GTP binding A
NCBI Official Symbol	RRAGA
NCBI Official Synonym Symbols	FIP1; RAGA; FIP-1
UniProt Protein Name	Ras-related GTP-binding protein A
UniProt Synonym Protein Names	Adenovirus E3 14.7 kDa-interacting protein 1; FIP-1
UniProt Gene Name	RRAGA
UniProt Entry Name	RRAGA_HUMAN
NCBI Protein Information	ras-related GTP-binding protein A
UniProt Comments for RRAGA/B	RRAGA: Has guanine nucleotide-binding activity but undetectable intrinsic GTPase activity. Required for the amino acid-induced relocalization of mTORC1 to the lysosomes and its subsequent activation by the GTPase RHEB. This is a crucial step in the activation of the TOR signaling cascade by amino acids. Involved in the RCC1/Ran-GTPase pathway. May play a direct role in a TNF- alpha signaling pathway leading to induction of cell death. May alternatively act as a cellular target for adenovirus E3-14.7K, an inhibitor of TNF-alpha functions, thereby affecting cell death. Can occur as a homodimer, or form a heterodimer with RRAGC or RRAGD in a sequence-independent manner. Binds GTP. The GTP-bound form of RRAGA interacts with NOL8. Interacts with adenovirus E3 14.7 kDa protein. Ubiquitously expressed with highest levels of expression in skeletal muscle, heart, and brain. Belongs to the GTR/RAG GTP-binding protein family. Protein type: G protein regulator, misc. Chromosomal Location of Human Ortholog: 9p22.1 Cellular Component: Golgi apparatus; intracellular membrane-bound organelle; lysosomal membrane; lysosome; cytoplasm; nucleus Molecular Function: GTPase activity; protein binding; protein homodimerization activity; GDP binding; GTP binding; protein heterodimerization activity; phosphoprotein binding Biological Process: cell death; metabolic process; apoptosis; virus-host interaction; positive regulation of cytolysis; regulation of autophagy; cellular response to starvation; positive regulation of TOR signaling pathway
Research Articles on RRAGA/B	**1.** cryo-electron microscopy structure of RagA/RagC in complex with mTORC1 shows the details of RagA/RagC binding to the RAPTOR subunit of mTORC1 and explains why only the RagAGTP/RagCGDP nucleotide state binds mTORC1
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