

Rabbit RRAGA/B Polyclonal Antibody | anti-RRAGA antibody

RRAGA/B Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325045	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

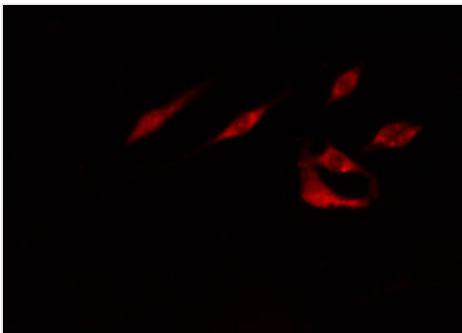
PRODUCT SYNONYMS

RRAGA/B; Polyclonal Antibody; RRAGA/B Antibody; Adenovirus E3 14.7 kDa-interacting protein 1; FIP-1; Rag A; RagA; Ras-related GTP-binding protein A; RRAGA; RRAGA_HUMAN; FIP1; RAg B; RAGB; Ras related GTP binding protein A; Ras-related GTP binding protein B; anti-RRAGA antibody

PRODUCT SPECIFICATIONS

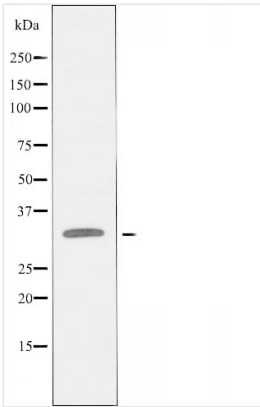
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	RRAGA/B antibody detects endogenous levels of total RRAGA/B
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	313
Applicable Applications for anti-RRAGA antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide
Subcellular Location	Cytoplasm. Nucleus. Lysosome. Predominantly Cytoplasmic. May shuttle between the cytoplasm and nucleus, depending on the bound nucleotide state. Colocalizes in vivo with adenovirus E3-14.7K mainly to the cytoplasm especially near the nuclear membrane and in discrete foci on or near the plasma membrane.
Tissue Specificity	Ubiquitously expressed with highest levels of expression in skeletal muscle, heart, and brain.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Sheep, Rabbit, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (90%), Bovine (100%), Sheep (100%), Rabbit (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA325045 staining HepG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from HepG2 cells, using RRAGA/B antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-RRAGA antibody

Function: Guanine nucleotide-binding protein that plays a crucial role in the cellular response to amino acid availability through regulation of the mTORC1 signaling cascade. Forms heterodimeric Rag complexes with RRAGC or RRAGD and cycles between an inactive GDP-bound and an active GTP-bound form. In its active form participates in the relocalization of mTORC1 to the lysosomes and its subsequent activation by the GTPase RHEB. 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.

Subunit Structure: Can occur as a homodimer or as a heterodimer with RRAGC or RRAGD in a sequence-independent manner; heterodimerization stabilizes proteins of the heterodimer (PubMed:11073942, PubMed:20381137). In complex with RRAGC, but not with RRAGB, interacts with RPTOR (PubMed:18497260). The GTP-bound form of RRAGA interacts with NOL8 (PubMed:14660641). Interacts with SH3BP4; the interaction with this negative regulator is most probably direct, preferentially occurs with the inactive GDP-bound form of RRAGA and is negatively regulated by amino acids (PubMed:22575674). The Rag heterodimer interacts with SLC38A9; the probable amino acid sensor (PubMed:25561175, PubMed:25567906). Interacts (inactive GDP-bound form) with RNF152; stimulated by amino acid starvation (PubMed:25936802). Interacts (polyubiquitinated) with the GATOR1 complex; inactivates RRAGA (PubMed:25936802). Interacts (polyubiquitinated) with TSC2 (PubMed:25936802). Interacts with adenovirus E3 14.7 kDa protein (PubMed:8995684). Interacts with SESN1, SESN2 AND SESN3 (PubMed:25259925).

Post-translational Modifications: Ubiquitinated. 'Lys-68'-linked polyubiquitination of the GDP-bound inactive form of RRAGA by RNF152 is increased in response to amino acid starvation. Polyubiquitination promotes interaction with the GATOR1 complex. This does not affect RRAGA degradation.

Similarity: Belongs to the GTR/RAG GTP-binding protein family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5729999
NCBI GeneID	10670
NCBI Accession #	NP_006561.1
NCBI GenBank Nucleotide #	NM_006570.4
UniProt Accession #	Q7L523; O00290; Q15347; B2R7L1
Molecular Weight	Observed: 34 kD Predicted: 37 kDa
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
NCBI Protein Information	ras-related GTP-binding protein A
UniProt Protein Name	Ras-related GTP-binding protein A
UniProt Gene Name	RRAGA
UniProt Synonym Gene Names	Rag A1 PublicationManual assertion based on opinion iniRef.8; RagA1 PublicationManual assertion based on opinion iniRef.1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rraga-b-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/325045>