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RRAGA Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP5772b

Specification

RRAGA Antibody (C-term) Blocking peptide - Product Information

Primary Accession	Q7L523
Other Accession	NP_006561.1

RRAGA Antibody (C-term) Blocking peptide - Additional Information

Gene ID 10670

Other Names
Ras-related GTP-binding protein A, Rag A, RagA, Adenovirus E3 147 kDa-interacting protein 1, FIP-1, RRAGA (HGNC:16963)

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RRAGA Antibody (C-term) Blocking peptide - Protein Information

Name RRAGA (HGNC:16963)

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 (PubMed:20381137, PubMed:24095279, PubMed:25936802, PubMed:31601764, PubMed:31601708). Forms heterodimeric Rag complexes with RagC/RRAGC or RagD/RRAGD and cycles between an inactive GDP-bound and an active GTP-bound form: RagA/RRAGA is in its active form when GTP-bound RagA/RRAGA forms a complex with GDP-bound RagC/RRAGC (or RagD/RRAGD) and in an inactive form when GDP-bound RagA/RRAGA heterodimerizes with GTP-bound RagC/RRAGC (or RagD/RRAGD) (PubMed:20381137, PubMed:24095279, PubMed:25936802, PubMed:<a href="http://www.uniprot.org/citations/32868926"

target="_blank">32868926, PubMed:31601764, PubMed:31601708). In its GTP-bound active form, promotes the recruitment of mTORC1 to the lysosomes and its subsequent activation by the GTPase RHEB (PubMed:20381137, PubMed:25936802, PubMed:31601764, PubMed:31601708). Involved in the RCC1/Ran-GTPase pathway (PubMed:9394008). May play a direct role in a TNF-alpha signaling pathway leading to induction of cell death (PubMed:8995684).

Cellular Location
Cytoplasm. Nucleus. Lysosome membrane Note=Predominantly cytoplasmic (PubMed:8995684, PubMed:9394008) Recruited to the lysosome surface by the Ragulator complex (PubMed:20381137, PubMed:28935770, PubMed:29158492). May shuttle between the cytoplasm and nucleus, depending on the bound nucleotide state (PubMed:8995684, PubMed:9394008). 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 (PubMed:8995684).

Tissue Location
Ubiquitously expressed with highest levels of expression in skeletal muscle, heart, and brain

RRAGA Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

RRAGA Antibody (C-term) Blocking peptide - Images

RRAGA Antibody (C-term) Blocking peptide - Background

Involved in the RCC1/Ran-GTPase pathway. RRAGA 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. Has guanine nucleotide-binding activity but undetectable intrinsic GTPase activity. biquitously expressed with highest levels of expression in skeletal muscle, heart, and brain.

RRAGA Antibody (C-term) Blocking peptide - References

Humphray, S.J., et al. Nature 429(6990):369-374(2004)Sekiguchi, T., et al. J. Biol. Chem. 279(9):8343-8350(2004)Sekiguchi, T., et al. J. Biol. Chem. 276(10):7246-7257(2001)Hirose, E., et al. J. Cell. Sci. 111 (PT 1), 11-21 (1998) :Li, Y., et al. J. Virol. 71(2):1576-1582(1997)Schurmann, A., et al. J. Biol. Chem. 270(48):28982-28988(1995)