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RRAGC Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP13084c

Specification

RRAGC Antibody (Center) Blocking peptide - Product Information

Primary Accession Q9HB90

RRAGC Antibody (Center) Blocking peptide - Additional Information

Gene ID 64121

Other Names
Ras-related GTP-binding protein C, Rag C, RagC, GTPase-interacting protein 2, TIB929, RRAGC (HGNC:19902)

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.

RRAGC Antibody (Center) Blocking peptide - Protein Information

Name RRAGC (HGNC:19902)

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:27234373, PubMed:31601764, PubMed:31601708, PubMed:32612235, PubMed:36697823). Forms heterodimeric Rag complexes with RagA/RRAGA or RagB/RRAGB and cycles between an inactive GTP-bound and an active GDP- bound form: RagC/RRAGC is in its active form when GDP-bound RagC/RRAGC forms a complex with GTP-bound RagA/RRAGA (or RagB/RRAGB) and in an inactive form when GTP-bound RagC/RRAGC heterodimerizes with GDP-bound RagA/RRAGA (or RagB/RRAGB) (PubMed:24095279, PubMed:32868926, PubMed:<a href="http://www.uniprot.org/citations/31601764"

target="_blank">31601764, PubMed:31601708). In its GDP-bound active form, promotes the recruitment of mTORC1 to the lysosomes and its subsequent activation by the GTPase RHEB (PubMed:20381137, PubMed:24095279, PubMed:27234373, PubMed:32612235, PubMed:32612235, PubMed:36697823). This is a crucial step in the activation of the MTOR signaling cascade by amino acids (PubMed:20381137, PubMed:24095279, PubMed:27234373). Also plays a central role in the non-canonical mTORC1 complex, which acts independently of RHEB and specifically mediates phosphorylation of MiT/TFE factors TFEB and TFE3: GDP-bound RagC/RRAGC mediates recruitment of MiT/TFE factors TFEB and TFE3 (PubMed:32612235, PubMed:36697823).

Cellular Location
Cytoplasm. Nucleus. Lysosome membrane Note=Predominantly cytoplasmic (PubMed:11073942). Recruited to the lysosome surface by the Ragulator complex (PubMed:20381137, PubMed:28935770). May shuttle between the cytoplasm and nucleus, depending on the bound nucleotide state of associated RRAGA (PubMed:11073942).

RRAGC Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

RRAGC Antibody (Center) Blocking peptide - Images

RRAGC Antibody (Center) Blocking peptide - Background

RRAGC is a monomeric guanine nucleotide-binding protein,or G protein. By binding GTP or GDP, small G proteins act asmolecular switches in numerous cell processes and signalingpathways.

RRAGC Antibody (Center) Blocking peptide - References

Sekiguchi, T., et al. J. Biol. Chem. 279(9):8343-8350(2004)Sekiguchi, T., et al. J. Biol. Chem. 276(10):7246-7257(2001)Horwitz, M.S. Virology 279(1):1-8(2001)