

RRAGC Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13084c**Specification**

RRAGC Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q9HB90
Other Accession	Q7TT45 , Q9NQL2 , Q99K70 , NP_071440.1
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44224
Antigen Region	169-198

RRAGC Antibody (Center) - Additional Information**Gene ID** 64121**Other Names**

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

Target/Specificity

This RRAGC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 169-198 amino acids from the Central region of human RRAGC.

Dilution

WB~~1:1000
IHC-P~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

RRAGC Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

RRAGC Antibody (Center) - 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:[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 mTORC1 factors TFE3 and TFE3: GDP-bound RagC/RRAGC mediates recruitment of mTORC1 factors TFE3 and TFE3 (PubMed:[32612235](#), PubMed:[36697823](#)).

Cellular Location

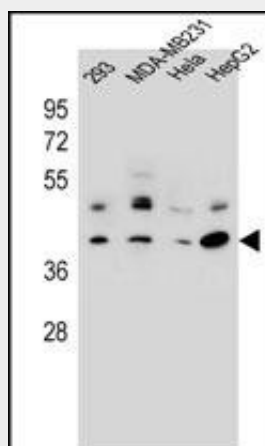
Cytoplasm. Nucleus. Lysosome membrane Note=Predominantly cytoplasmic (PubMed:11073942). Recruited to the lysosome surface by the Ragulator complex (PubMed:20381137, PubMed:28935770). May shuttle between the cytoplasm and nucleus, depending on the bound nucleotide state of associated RRAGA (PubMed:11073942).

RRAGC Antibody (Center) - Protocols

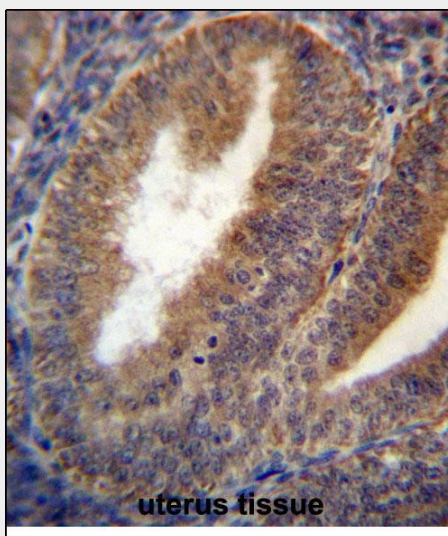
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

RRAGC Antibody (Center) - Images



RRAGC Antibody (Center) (Cat. #AP13084c) western blot analysis in 293,MDA-MB231,Hela,HepG2 cell line lysates (35ug/lane).This demonstrates the RRAGC antibody detected the RRAGC protein (arrow).



RRAGC Antibody (Center) (Cat. #AP13084c)immunohistochemistry analysis in formalin fixed and paraffin embedded human uterus tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of RRAGC Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

RRAGC Antibody (Center) - Background

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

RRAGC Antibody (Center) - 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)