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Anti-RagA/B Antibody
Catalog # AP53887

Specification

Anti-RagA/B Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q7L523
Other Accession	Q5VZM2
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**36566**

Anti-RagA/B Antibody - Additional Information

Gene ID 10670

Other Names
RRAGA; Ras-related GTP-binding protein A; Rag A; RagA; Adenovirus E3 14.7 kDa-interacting protein 1; FIP-1; RRAGB; Ras-related GTP-binding protein B; Rag B; RagB

Target/Specificity
KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human RagA/B. The exact sequence is proprietary.

Dilution
WB~~1/500 - 1/1000
IHC~~1:100~500

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-RagA/B Antibody - 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:31601708, PubMed:31601764, PubMed:<a

href="http://www.uniprot.org/citations/38103557" target="_blank">38103557). 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:31601708, PubMed:31601764, PubMed:32868926). 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:31601708, PubMed:31601764). 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

Anti-RagA/B Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-RagA/B Antibody - Images

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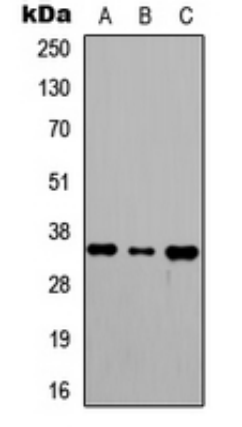
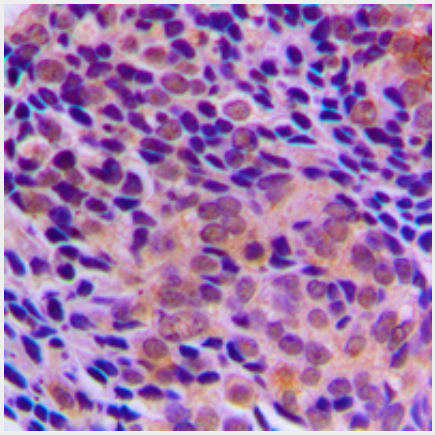


Western blot analysis of RagA/B expression in MCF7 (A), HeLa (B), mouse brain (C) whole cell lysates.



Immunohistochemical analysis of RagA/B staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-RagA/B Antibody - Background

Rabbit polyclonal antibody to RagA/B