

RAN (aa 197-210) Antibody (C-Term)
Peptide-affinity purified goat antibody
Catalog # AF3439a**Specification**

RAN (aa 197-210) Antibody (C-Term) - Product Information

Application	WB, IF
Primary Accession	P62826
Other Accession	NP_006316.1 , 5901 , 19384 (mouse) , 84509 (rat)
Reactivity	Human, Mouse, Rat
Predicted	Cow
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	24423

RAN (aa 197-210) Antibody (C-Term) - Additional Information**Gene ID** 5901**Other Names**

GTP-binding nuclear protein Ran, Androgen receptor-associated protein 24, GTPase Ran, Ras-like protein TC4, Ras-related nuclear protein, RAN, ARA24

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

RAN (aa 197-210) Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

RAN (aa 197-210) Antibody (C-Term) - Protein Information**Name** RAN**Synonyms** ARA24 {ECO:0000303|PubMed:10400640}**Function**

GTPase involved in nucleocytoplasmic transport, participating both to the import and the export from the nucleus of proteins and RNAs (PubMed:10400640, PubMed:10400640)

[8276887](http://www.uniprot.org/citations/8276887) PubMed: [8896452](http://www.uniprot.org/citations/8896452) PubMed: [8636225](http://www.uniprot.org/citations/8636225) PubMed: [8692944](http://www.uniprot.org/citations/8692944) PubMed: [9351834](http://www.uniprot.org/citations/9351834) PubMed: [9428644](http://www.uniprot.org/citations/9428644) PubMed: [9822603](http://www.uniprot.org/citations/9822603) PubMed: [17209048](http://www.uniprot.org/citations/17209048) PubMed: [26272610](http://www.uniprot.org/citations/26272610) PubMed: [27306458](http://www.uniprot.org/citations/27306458)). Switches between a cytoplasmic GDP- and a nuclear GTP-bound state by nucleotide exchange and GTP hydrolysis (PubMed: [7819259](http://www.uniprot.org/citations/7819259) target="_blank">7819259 PubMed: [8896452](http://www.uniprot.org/citations/8896452) target="_blank">8896452 PubMed: [8636225](http://www.uniprot.org/citations/8636225) target="_blank">8636225 PubMed: [8692944](http://www.uniprot.org/citations/8692944) target="_blank">8692944 PubMed: [9351834](http://www.uniprot.org/citations/9351834) target="_blank">9351834 PubMed: [9428644](http://www.uniprot.org/citations/9428644) target="_blank">9428644 PubMed: [9822603](http://www.uniprot.org/citations/9822603) target="_blank">9822603 PubMed: [29040603](http://www.uniprot.org/citations/29040603) target="_blank">29040603 PubMed: [11336674](http://www.uniprot.org/citations/11336674) target="_blank">11336674 PubMed: [26272610](http://www.uniprot.org/citations/26272610) target="_blank">26272610). Nuclear import receptors such as importin beta bind their substrates only in the absence of GTP-bound RAN and release them upon direct interaction with GTP-bound RAN, while export receptors behave in the opposite way. Thereby, RAN controls cargo loading and release by transport receptors in the proper compartment and ensures the directionality of the transport (PubMed: [8896452](http://www.uniprot.org/citations/8896452) target="_blank">8896452 PubMed: [9351834](http://www.uniprot.org/citations/9351834) target="_blank">9351834 PubMed: [9428644](http://www.uniprot.org/citations/9428644) target="_blank">9428644). Interaction with RANBP1 induces a conformation change in the complex formed by XPO1 and RAN that triggers the release of the nuclear export signal of cargo proteins (PubMed: [20485264](http://www.uniprot.org/citations/20485264) target="_blank">20485264). RAN (GTP-bound form) triggers microtubule assembly at mitotic chromosomes and is required for normal mitotic spindle assembly and chromosome segregation (PubMed: [10408446](http://www.uniprot.org/citations/10408446) target="_blank">10408446 PubMed: [29040603](http://www.uniprot.org/citations/29040603) target="_blank">29040603). Required for normal progress through mitosis (PubMed: [8421051](http://www.uniprot.org/citations/8421051) target="_blank">8421051 PubMed: [12194828](http://www.uniprot.org/citations/12194828) target="_blank">12194828 PubMed: [29040603](http://www.uniprot.org/citations/29040603) target="_blank">29040603). The complex with BIRC5/survivin plays a role in mitotic spindle formation by serving as a physical scaffold to help deliver the RAN effector molecule TPX2 to microtubules (PubMed: [18591255](http://www.uniprot.org/citations/18591255) target="_blank">18591255). Acts as a negative regulator of the kinase activity of VRK1 and VRK2 (PubMed: [18617507](http://www.uniprot.org/citations/18617507) target="_blank">18617507). Enhances AR- mediated transactivation. Transactivation decreases as the poly-Gln length within AR increases (PubMed: [10400640](http://www.uniprot.org/citations/10400640) target="_blank">10400640).

Cellular Location

Nucleus. Nucleus envelope. Cytoplasm, cytosol Cytoplasm. Melanosome Note=Predominantly nuclear during interphase (PubMed:8421051, PubMed:12194828, PubMed:10679025). Becomes dispersed throughout the cytoplasm during mitosis (PubMed:8421051, PubMed:12194828). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065).

Tissue Location

Expressed in a variety of tissues.

RAN (aa 197-210) Antibody (C-Term) - Protocols

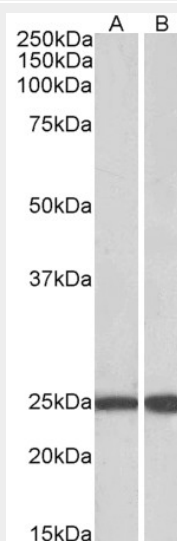
Provided below are standard protocols that you may find useful for product applications.

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

RAN (aa 197-210) Antibody (C-Term) - Images



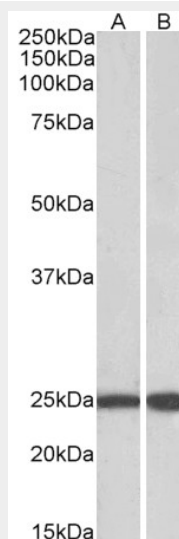
AF3439a (1 μ g/ml) staining of Human Testis lysate (35 μ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



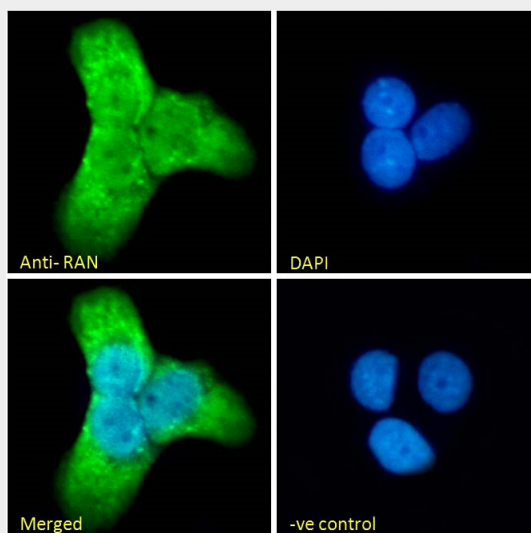
AF3439a (0.1 μ g/ml) staining of Mouse (A) and Rat (B) Testis lysate (35 μ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



EB10644 (1µg/ml) staining of Human Testis lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB10644 (0.1µg/ml) staining of Mouse (A) and Rat (B) Testis lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB10644 Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing nuclear and cytoplasmic staining. The nuclear stai

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Activation of the Ran GTPase is subject to growth factor regulation and can give rise to cellular transformation. Ly TK, Wang J, Pereira R, Rojas KS, Peng X, Feng Q, Cerione RA, Wilson KF, The Journal of biological chemistry 2010 Feb 285 (8): 5815-26. PMID: 20028979