

Ran Antibody
Rabbit mAb
Catalog # AP91456**Specification**

Ran Antibody - Product Information

Application	WB, FC, ICC, IP
Primary Accession	P62826
Reactivity	Rat
Clonality	Monoclonal

Other Names

ARA24; Gsp1; GTPase Ran; Guanosine triphosphatase Ran; LPS; RAN member RAS oncogene family; RanGTPase; Ras like protein TC4; Ras related nuclear protein; Ras-like protein TC4; RASL2 8;

Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	24423 Da

Ran Antibody - Additional Information

Dilution	WB~~1:1000 FC~~1:10~50 ICC~~N/A IP~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Ran
Description	GTP-binding protein involved in nucleocytoplasmic transport. Required for the import of protein into the nucleus and also for RNA export. Involved in chromatin condensation and control of cell cycle (By similarity).
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Ran Antibody - 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:<a

[>10400640, PubMed:17209048, PubMed:26272610, PubMed:27306458, PubMed:8276887, PubMed:8636225, PubMed:8692944, PubMed:8896452, PubMed:9351834, PubMed:9428644, PubMed:9822603\). Switches between a cytoplasmic GDP- and a nuclear GTP-bound state by nucleotide exchange and GTP hydrolysis \(PubMed:11336674, PubMed:26272610, PubMed:29040603, PubMed:7819259, PubMed:8636225, PubMed:8692944, PubMed:8896452, PubMed:9351834, PubMed:9428644, PubMed:9822603\). 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 \(PubMed:8896452, PubMed:9351834, PubMed:9428644\). 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 \(PubMed:20485264\). RAN \(GTP-bound form\) triggers microtubule assembly at mitotic chromosomes and is required for normal mitotic spindle assembly and chromosome segregation \(PubMed:10408446, PubMed:29040603\). Required for normal progress through mitosis \(PubMed:12194828, PubMed:29040603, PubMed:8421051\). 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 \(PubMed:18591255\). Acts as a negative regulator of the kinase activity of VRK1 and VRK2 \(PubMed:18617507\). Enhances AR- mediated transactivation. Transactivation decreases as the poly-Gln length within AR increases \(PubMed:10400640\).](http://www.uniprot.org/citations/10400640)

Cellular Location

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

Tissue Location

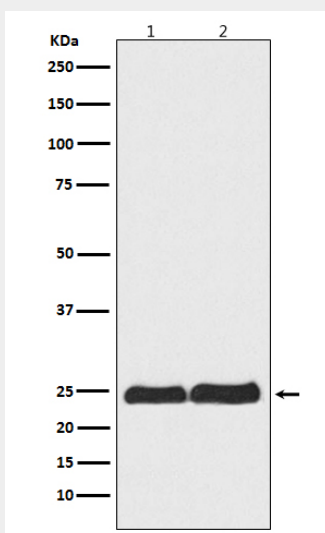
Expressed in a variety of tissues.

Ran 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 Cytometry](#)
- [Cell Culture](#)

Ran Antibody - Images



Western blot analysis of Ran expression in (1)HeLa cell lysate; (2)RAW264.7 cell lysate.