

Rabbit Ran Polyclonal Antibody | anti-Ran antibody

Anti-Ran Picoband Antibody

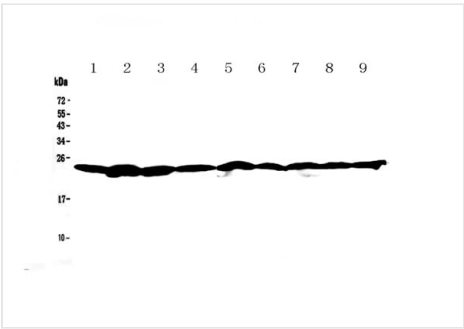
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19131	Rabbit	Human, Mouse, Rat No cross reactivity with other proteins.	Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Ran; Polyclonal Antibody; Anti-Ran Picoband Antibody; GTP-binding nuclear protein Ran; Androgen receptor-associated protein 24; GTPase Ran; Ras-like protein TC4; Ras-related nuclear protein; RAN; ARA24; OK/SW-cl.81; anti-Ran antibody

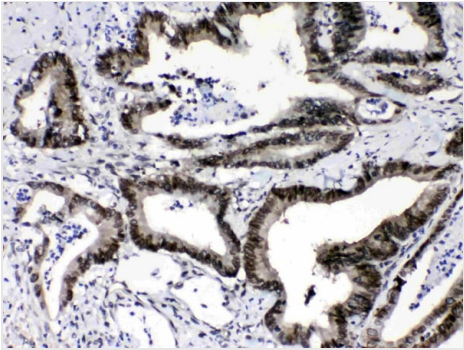
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat No cross reactivity with other proteins.
Clonality	Polyclonal
Purity/Purification	Immunogen affinity purified
Form/Format	Lyophilized
Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/ml. (varies by lot)
Sequence Length	216
Applicable Applications for anti-Ran antibody	IHC (Immunohistochemistry), WB (Western Blot)
Application Notes	Immunohistochemistry (Paraffin-embedded Section): 0.5-1μg/ml (By Heat) WB: 0.1-0.5μg/ml
Immunogen	E Coli-derived human Ran recombinant protein (Position: A2-L216). Human Ran shares 100% amino acid (aa) sequence identity with both mouse and rat Ran.
Subcellular Localization	Nucleus. Cytoplasm. Melanosome. Nucleus envelope. Predominantly nuclear during interphase. Becomes dispersed throughout the cytoplasm during mitosis. Colocalizes with NEMP1 at the nuclear envelope (By similarity). Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Tissue Specificity	Expressed in a variety of tissues.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



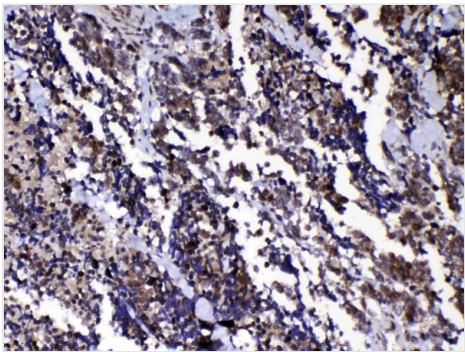
WB (Western Blot)

Figure 1. Western blot analysis of Ran using anti-Ran antibody (AAA19131). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysate, Lane 2: rat testis tissue lysate, Lane 3: rat thymus tissue lysate, Lane 4: mouse brain tissue lysate, Lane 5: mouse testis tissue lysate, Lane 6: mouse thymus tissue lysate, Lane 7: human A549 whole cell lysate, Lane 8: human 22RV1 whole cell lysate, Lane 9: human Hela whole cell lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Ran antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Ran at approximately 24KD. The expected band size for Ran is at 24KD.



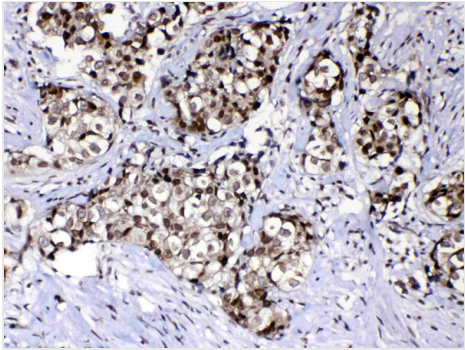
IHC (Immunohistochemistry)

Figure 2. IHC analysis of Ran using anti-Ran antibody (AAA19131).Ran was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Ran Antibody (AAA19131) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



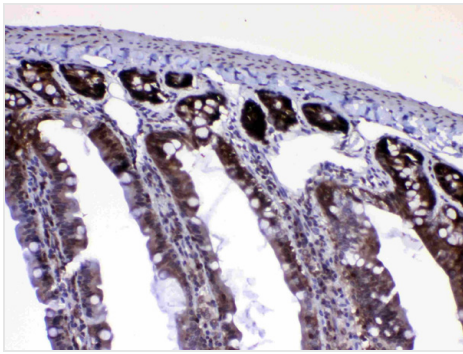
IHC (Immunohistochemistry)

Figure 3. IHC analysis of Ran using anti-Ran antibody (AAA19131).Ran was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Ran Antibody (AAA19131) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



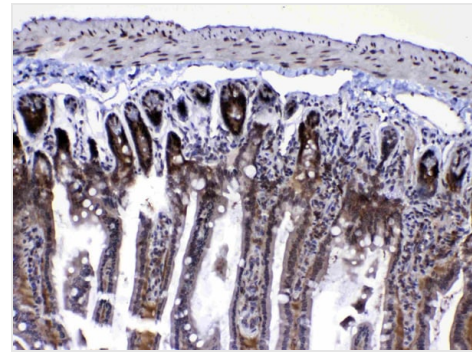
IHC (Immunohistochemistry)

Figure 4. IHC analysis of Ran using anti-Ran antibody (AAA19131).Ran was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Ran Antibody (AAA19131) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 6. IHC analysis of Ran using anti-Ran antibody (AAA19131). Ran was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Ran Antibody (AAA19131) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of Ran using anti-Ran antibody (AAA19131). Ran was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Ran Antibody (AAA19131) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-Ran antibody

Description: RAN (ras-related nuclear protein) is a small GTP binding protein belonging to the RAS superfamily that is essential for the translocation of RNA and proteins through the nuclear pore complex. The RAN protein is also involved in control of DNA synthesis and cell cycle progression. Nuclear localization of RAN requires the presence of regulator of chromosome condensation 1 (RCC1). Mutations in RAN disrupt DNA synthesis. Because of its many functions, it is likely that RAN interacts with several other proteins. RAN regulates formation and organization of the microtubule network independently of its role in the nucleus-cytosol exchange of macromolecules. RAN could be a key signaling molecule regulating microtubule polymerization during mitosis. RCC1 generates a high local concentration of RAN-GTP around chromatin which, in turn, induces the local nucleation of microtubules. RAN is an androgen receptor (AR) coactivator that binds differentially with different lengths of polyglutamine within the androgen receptor. Polyglutamine repeat expansion in the AR is linked to Kennedy's disease (X-linked spinal and bulbar muscular atrophy). RAN coactivation of the AR diminishes with polyglutamine expansion within the AR, and this weak coactivation may lead to partial androgen insensitivity during the development of Kennedy's disease.

Protein Function: 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). 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. Acts as a negative regulator of the kinase activity of VRK1 and VRK2.

Product Categories/Family for anti-Ran antibody

Cell Biology; Cell Cycle; Cell Division; spindle; Signal Transduction; Signaling Pathway; G Protein Signaling; Small G Proteins; RAS Family; Protein Trafficking; nuclear import/export; Epigenetics and Nuclear Signaling; Nuclear Signaling Pathways; Nuclear

NCBI AND UNIPROT INFORMATION

NCBI GI #	663855578
NCBI GeneID	5901
NCBI Accession #	NP_001287725.1
NCBI GenBank Nucleotide #	NM_001300796.1
UniProt Accession #	P62826; P17080; P28746; P28747; Q6IPB2; Q86V08; Q8NI90; Q9CSP3; Q9CWI7; Q9CZA2; Q9UDJ5; A8K3Z8
Molecular Weight	24423 MW
NCBI Official Full Name	GTP-binding nuclear protein Ran isoform 2
NCBI Official Synonym Full Names	RAN, member RAS oncogene family
NCBI Official Symbol	RAN

NCBI Official Synonym Symbols	TC4; Gsp1; ARA24
NCBI Protein Information	GTP-binding nuclear protein Ran
UniProt Protein Name	GTP-binding nuclear protein Ran
UniProt Gene Name	RAN
UniProt Synonym Gene Names	ARA24

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ran-antibody-immunohistochemistry-western-blot-elisa/19131>