

Datasheet for ABIN5518950  
**anti-RAN antibody (AA 2-216)**

## 6 Images

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## Overview

Quantity:	100 µg
Target:	RAN
Binding Specificity:	AA 2-216
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This RAN antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

## Product Details

Purpose:	Rabbit IgG polyclonal antibody for GTP-binding nuclear protein Ran(RAN) detection. Tested with WB, IHC-P in Human,Mouse,Rat.
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.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	<p>Rabbit IgG polyclonal antibody for GTP-binding nuclear protein Ran(RAN) detection. Tested with WB, IHC-P in Human,Mouse,Rat.</p> <p>Gene Name: RAN, member RAS oncogene family</p> <p>Protein Name: GTP-binding nuclear protein Ran</p>
Purification:	Immunogen affinity purified.

## Target Details

Target:	RAN
Alternative Name:	RAN ( <a href="#">RAN Products</a> )
Background:	<p>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.</p> <p>Synonyms: 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</p>
Gene ID:	5901
UniProt:	<a href="#">P62826</a>
Pathways:	<a href="#">Regulatory RNA Pathways</a> , <a href="#">Intracellular Steroid Hormone Receptor Signaling Pathway</a> , <a href="#">Protein targeting to Nucleus</a>

## Application Details

Application Notes:	<p>WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, Rat</p> <p>IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.</p> <p>Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.</p>
Comment:	Booster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for

## Application Details

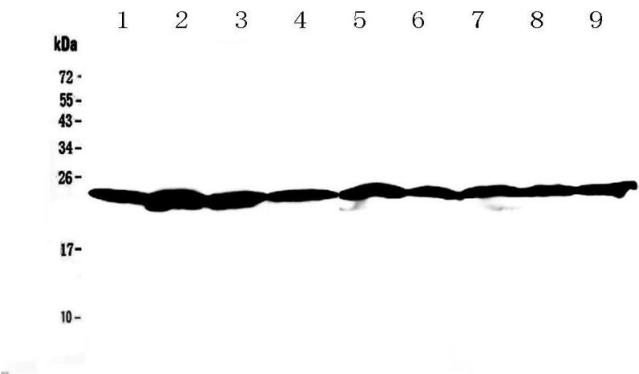
Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).

Restrictions: For Research Use only

## Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

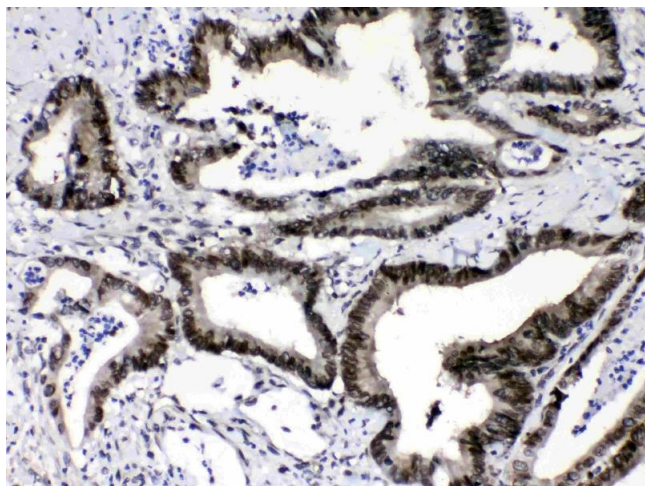
## Images



### Western Blotting

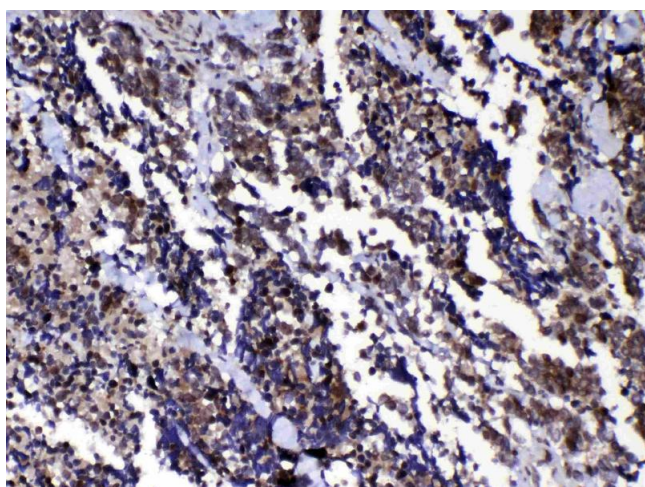
**Image 1.** Western blot analysis of Ran using anti-Ran antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysate, 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 (Catalog # ) at 0.5 µg/mL overnight at 4°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 (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Ran at approximately 24KD. The expected band size for Ran is at 24KD.



#### Immunohistochemistry

**Image 2.** IHC analysis of Ran using anti-Ran antibody . 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 1µg/ml rabbit anti-Ran Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



#### Immunohistochemistry

**Image 3.** IHC analysis of Ran using anti-Ran antibody . 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 1µg/ml rabbit anti-Ran Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog

# SA1022) with DAB as the chromogen.

Please check the [product details page](#) for more images. Overall 6 images are available for ABIN5518950.