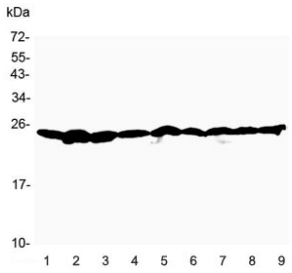
RAN Antibody / Ras-related nuclear protein (R32825)

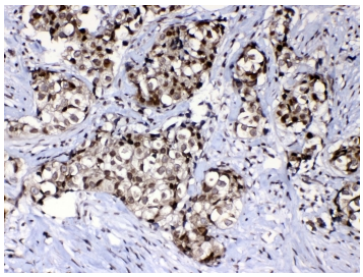
Catalog No.	Formulation	Size
R32825	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

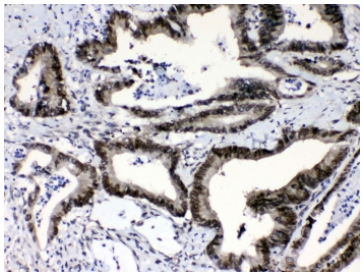
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P62826
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunofluorescence/Immunocytochemistry: 2-4ug/ml Flow cytometry: 1-3ug/10^6 cells
Limitations	This RAN antibody is available for research use only.



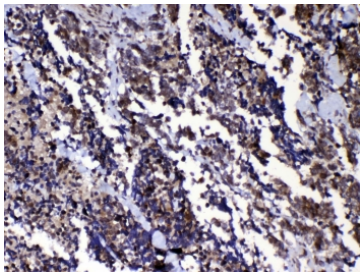
Western blot testing of 1) rat brain, 2) rat testis, 3) rat thymus, 4) mouse brain, 5) mouse testis, 6) mouse thymus, 7) human A549, 8) human 22RV1 and 9) human HeLa lysate with RAN antibody at 0.5ug/ml. Predicted molecular weight ~25 kDa.



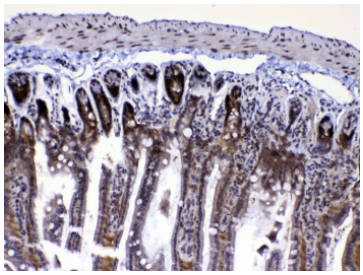
IHC testing of FFPE human breast cancer tissue with RAN antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.



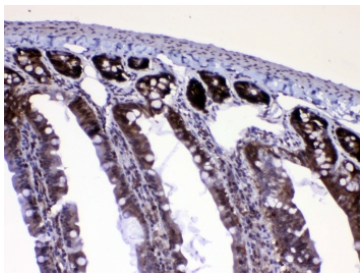
IHC testing of FFPE human intestinal cancer tissue with RAN antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.



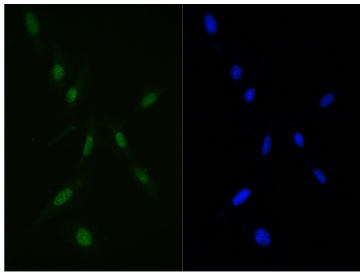
IHC testing of FFPE human lung cancer tissue with RAN antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.



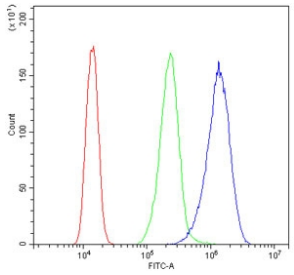
IHC testing of FFPE mouse small intestine tissue with RAN antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.



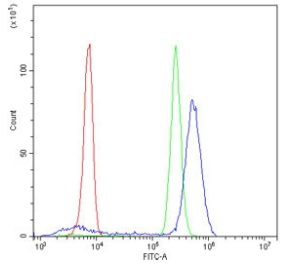
IHC testing of FFPE rat small intestine tissue with RAN antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.



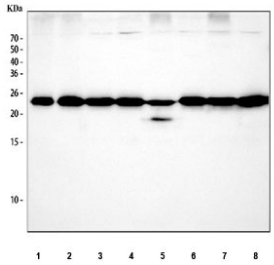
IF/ICC staining of FFPE human U-2 OS cells with RAN antibody (green) at 2ug/ml and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Flow cytometry testing of human A431 cells with RAN antibody at 1ug/10^6 cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= RAN antibody.



Flow cytometry testing of human U937 cells with RAN antibody at 1ug/10^6 cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= RAN antibody.



Western blot testing of 1) human PC-3, 2) human RT4, 3) human A549, 4) human Caco-2, 5) rat thymus, 6) rat PC-12, 7) mouse thymus and 8) mouse A20 cell lysate with RAN antibody at 0.5ug/ml. Predicted molecular weight ~25 kDa.

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.

Application Notes

Optimal dilution of the RAN antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids A2-L216 was used as the immunogen for the RAN antibody.

Storage

After reconstitution, the RAN antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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