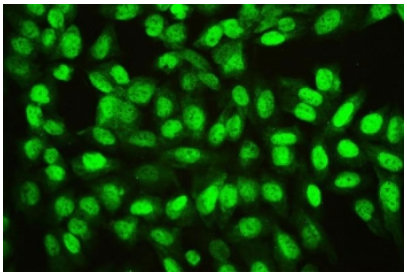
Ran Antibody [clone 5D5] (RQ5518)

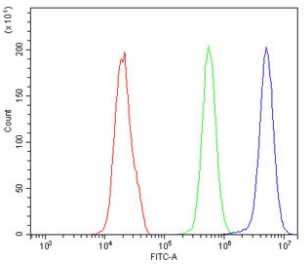
Catalog No.	Formulation	Size
RQ5518	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

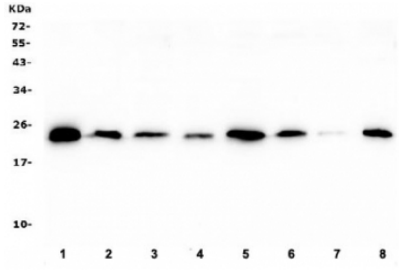
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	5D5
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P62826
Applications	Western Blot : 0.5-1ug/ml Immunofluorescence : 2-4ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Ran antibody is available for research use only.



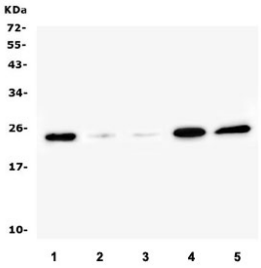
Immunofluorescent staining of FFPE human U-2 OS cells with Ran antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



Flow cytometry testing of human PC-3 cells with Ran antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Ran antibody.



Western blot testing of human 1) HL60, 2) T-47D, 3) A549, 4) U-2 OS, 5) ThP-1, 6) HepG2, 7) PANC-1 and 8) SW620 lysate with Ran antibody. Predicted molecular weight ~24 kDa.



Western blot testing of 1) rat testis, 2) mouse lung, 3) mouse kidney, 4) mouse testis and 5) mouse Neuro-2a lysate with Ran antibody. Predicted molecular weight ~24 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 human recombinant protein (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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