
Product Name: RAN Mouse Monoclonal Antibody**Catalog #: AMM81656**

For research use only.

Summary

Description	Mouse monoclonal Antibody
Host	Mouse
Application	WB,IHC,ICC,ELISA,FC
Reactivity	Human,Mouse,Monkey,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Monoclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Purified antibody in PBS with 0.05% sodium azide
Purification	Affinity Purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:200-1:1000,ICC 1:200-1:1000,ELISA 1:5000-1:20000,FC 1:200-1:400
Molecular Weight	24.4kDa

Antigen Information

Gene Name	RAN
Alternative Names	TC4; Gsp1; ARA24
Gene ID	5901.0
SwissProt ID	P62826
Immunogen	Purified recombinant fragment of human RAN (AA: 1-216) expressed in E. Coli.

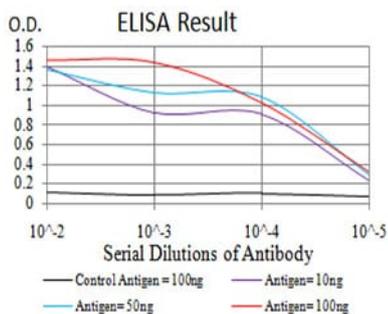
Background

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

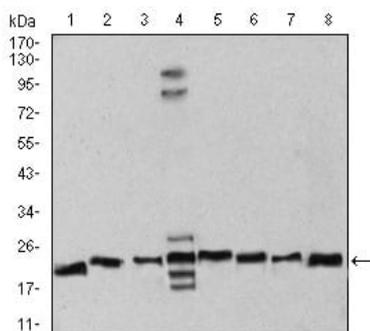
condensation 1 (RCC1). Mutations in RAN disrupt DNA synthesis. Because of its many functions, it is likely that RAN interacts with several other proteins. RAN regulates formation and organization of the microtubule network independently of its role in the nucleus-cytosol exchange of macromolecules. RAN 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.

Research Area

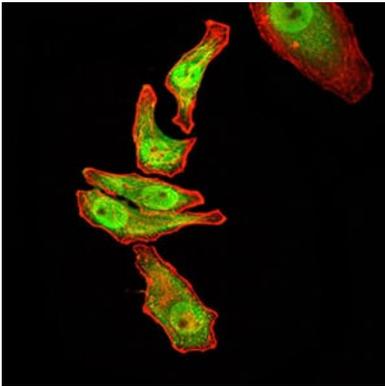
Image Data



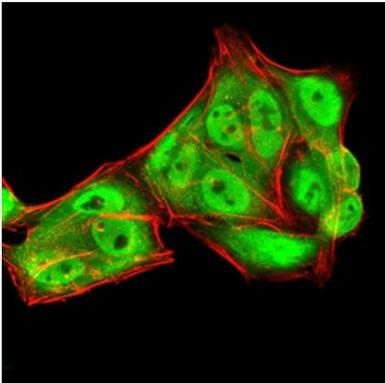
Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)



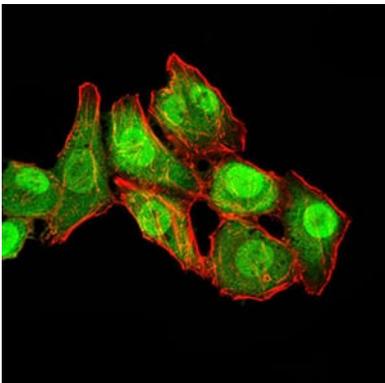
Western blot analysis using RAN mouse mAb against HeLa (1), NIH/3T3 (2), A431 (3), C6 (4), Jurkat (5), HeLa (6), COS7 (7), and Jurkat (8) cell lysate.



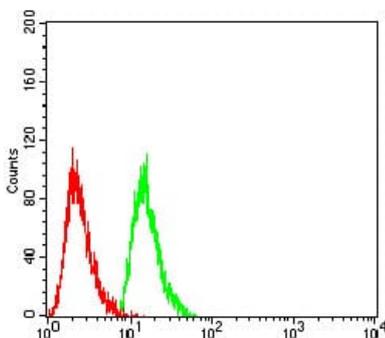
Immunofluorescence analysis of GC-7901 cells using RAN mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.



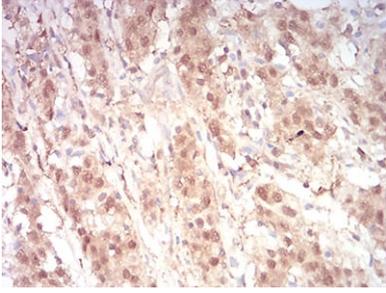
Immunofluorescence analysis of Hela cells using RAN mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.



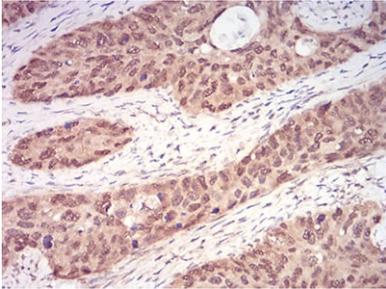
Immunofluorescence analysis of HepG2 cells using RAN mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.



Flow cytometric analysis of Hela cells using RAN mouse mAb (green) and negative control (red).



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissues using RAN mouse mAb with DAB staining.



Immunohistochemical analysis of paraffin-embedded human cervical cancer tissues using RAN mouse mAb with DAB staining.