

## RAN monoclonal antibody

Catalog: MB22135

Host: Mouse

Reactivity: Human, Mouse, Monkey, Rat

### 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 co-activation 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.

### Product:

Purified antibody in PBS with 0.05% sodium azide

### Molecular Weight:

24.4kDa

### Swiss-Prot:

P62826

### Purification&Purity:

The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB:1/500 - 1/2000 IHC:1/200 - 1/1000 IF:1/200 - 1/1000  
FC:1/200 - 1/400

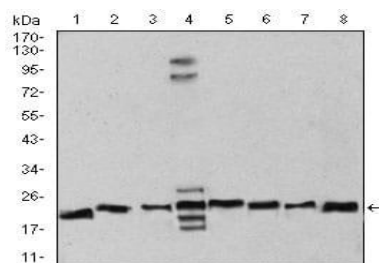
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

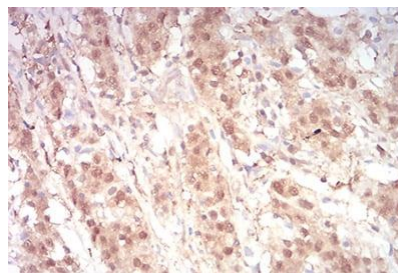
### Isotype:

Mouse IgG1

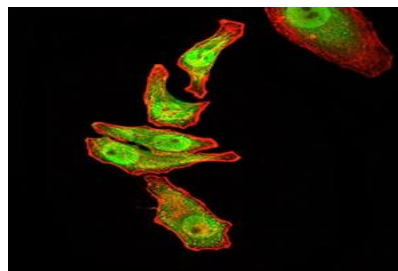
### DATA:



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.



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



Immunofluorescence analysis of GC-7901 cells using RAN mouse mAb

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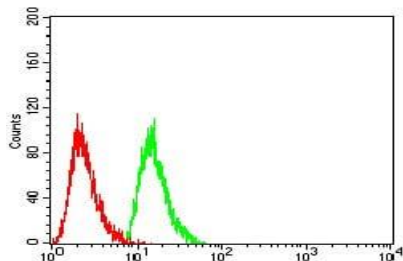
## PRODUCT DATA SHEET

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(green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)

**Note:**

For research use only, not for use in diagnostic procedure.



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

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