

## Anti-RAN antibody

<b>Cat. No.</b>	ml260082
<b>Package</b>	25 µl/100 µl/200 µl
<b>Storage</b>	-20°C, pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol

### Product overview

<b>Description</b>	Anti-RAN rabbit polyclonal antibody
<b>Applications</b>	ELISA, WB, IHC
<b>Immunogen</b>	Synthetic peptide of human RAN
<b>Reactivity</b>	Human, Mouse, Rat
<b>Content</b>	0.6 mg/ml
<b>Host species</b>	Rabbit
<b>Ig class</b>	Immunogen-specific rabbit IgG
<b>Purification</b>	Antigen affinity purification

### Target information

<b>Symbol</b>	RAN
<b>Full name</b>	Ras-related nuclear protein

**Synonyms** TC4, Gsp1, ARA24

**Swissprot** P62826

### Target 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.

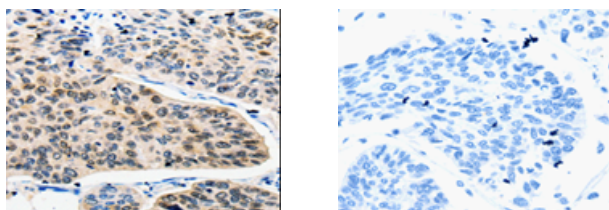
## Applications

### Immunohistochemistry

Predicted cell location: Cytoplasm, Nucleus

Positive control: Human lung cancer

Recommended dilution: 25-100



The image on the left is immunohistochemistry of paraffin-embedded Human lung cancer tissue using ml260082(RAN Antibody) at dilution 1/25, on the right is treated with synthetic peptide. (Original magnification:  $\times 200$ )

### Western blotting

Predicted band size: 25 kDa

Positive control: Hela, NIH/3T3 and HepG2 cells, Mouse testis tissue

Recommended dilution: 200-1000

Gel: 10%SDS-PAGE

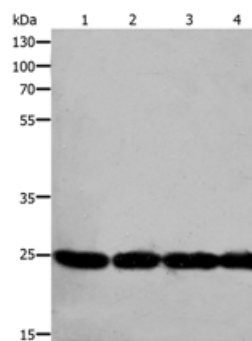
Lysate: 30 µg

Lane 1-4: Hela cells, NIH/3T3 cells, HepG2 cells, Mouse testis tissue

Primary antibody: ml260082(RAN Antibody) at dilution 1/400

Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution

Exposure time: 1 minute



## ELISA

Recommended dilution: 1000-5000

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