

## RAN Antibody

Catalog No: #31155

Package Size: #31155-1 50ul #31155-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

## Description

|                       |   |
|-----------------------|---|
| Product Name          | RAN Antibody  |
| Host Species          | Rabbit  |
| Clonality             | Polyclonal  |
| Applications          | ELISA WB IHC  |
| Species Reactivity    | Hu Ms Rt  |
| Specificity           | The antibody detects endogenous level of total RAN protein.   |
| Immunogen Type        | Peptide   |
| Immunogen Description | Synthetic peptide corresponding to a region derived from 200-216 amino acids of Human Ras-related nuclear protein |
| Target Name           | RAN   |
| Other Names           | Ras-related nuclear protein, TC4, Gsp1, ARA24   |
| Accession No.         | Swiss-Prot:P62826Gene ID:5901;  |
| Uniprot               | P62826  |
| GeneID                | 5901;   |
| Formulation           | Rabbit IgG in pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol.   |
| Storage               | Store at -20°C/1 year   |

## Application Details

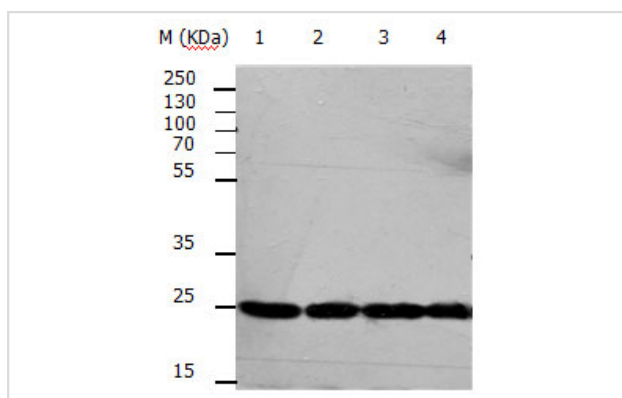
Predicted MW: 25kd

ELISA: 1:1000-1:5000

Western blotting: 1:200-1:1000

Immunohistochemistry: 1:25-1:100

## Images



Gel: 10%SDS-PAGE

Lane1: HeLa cell lysate

Lane2: NIH/3T3 cell lysate

Lane3: HepG2 cell lysate

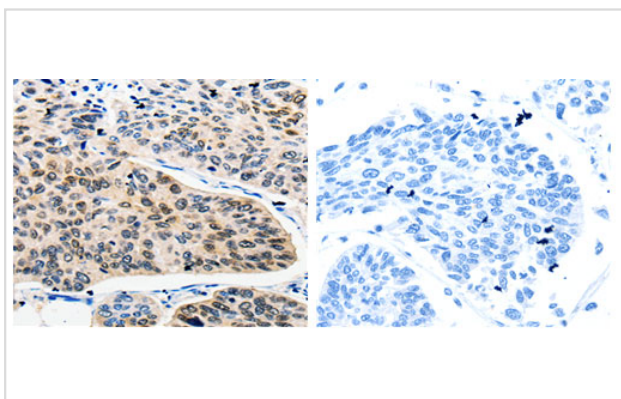
Lane4: Mouse testis tissue lysate

Lysates: 30ug per lane

Primary antibody: 1/200 dilution

Secondary antibody: Donkey anti Rabbit IgG - H&amp;L (HRP) at 1/3000 dilution

Exposure time: 1 minute



The image on the left is immunohistochemistry of paraffin-embedded Human lung cancer tissue using 31155(RAN Antibody) at dilution 1/25, on the right is treated with the synthetic peptide.

## 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.

Note: This product is for in vitro research use only