

## RAN PROTEIN

### Ran Protein

**Cat. #:** 10112

**Product Name:** Ran Protein

**Synonyms:** Ras-related nuclear protein, TC4, Gsp1, ARA24

**Source:** Human, recombinant full length, His6-tag

**Expression Host Species:** E. coli

**Molecular Weight:** 24 kDa

**Purity:** >95% by SDS-PAGE

**Introduction:** Ran is a member of the Ras-superfamily GTPases. Ran is involved in control of DNA synthesis and of cell cycle progression, and the transport of proteins across the nuclear envelope, as well as in microtubule organization during mitosis.

**Amino Acid Sequence** (1-216)

MAAQGEPQVQFKLVLVGDDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTA  
GQEKFGGLRDGYIQAQCAIIMFDVTSRVTYKNVPNWHRDLVRVCENIPIVLCGNKVDIKDRKVKAK  
SIVFHRKKNLQYYDISAKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVM DPALAAQYEHDL  
VAQTTALPDEDDL

#### Properties

**Physical Appearance (form):** Dissolved in 20mM Tris-HCl, pH8.0, 150mM NaCl.

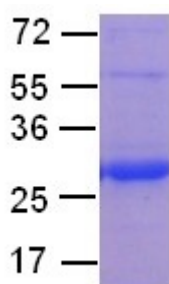
**Physical Appearance (form):** White or clear

**Concentration:** 1 mg/mL

**Storage:** -80°C

#### Preparation Instructions:

Centrifuge the vial before open the cap and reconstitute in water. Adding of 10 mM  $\beta$ -mercaptoethanol or 1 mM DTT into the solution to protect the protein is recommended and using of non-ionic detergents such as n-Dodecyl  $\beta$ -D-maltoside (DoDM) or polyethylene detergents (e.g. C12E10) also help to stabilize the protein. Avoid repeated freezing and thawing after reconstitution. The purity of His-tagged Ran was determined by SDS- PAGE and Coomassie Brilliant Blue Staining.



#### References:

1. Carazo-Salas, R. E. et al., Nature 400: 178-181, 1999.
2. Caudron, M. et al., Science 309: 1373-1376, 2005.

3. Kalab, P. et al., Nature 440: 697–701, 2006.
4. Lee, S. J. et al., Nature 435: 693–696, 2005.
5. Monecke, T. et al., Science 324: 1087–1091, 2009.
6. Ohba, T. et al., Science 284: 1356–1358, 1999.
7. Seewald, M. J. et al., Nature 415: 662–666, 2002.
8. Smith, A. E. et al., Science 295: 488–491, 2002.
9. Walther, T. C. et al., Nature 424: 689–694, 2003.
10. Wiese, C. et al., Science 291: 653–656, 2001.