

Product datasheet for **AR09527PU-L**

RAN (1-216, His-tag) Human Protein

Product data:

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|---------------------------------------|--|
| Product Type: | Recombinant Proteins |
| Description: | RAN (1-216, His-tag) human recombinant protein, 0.25 mg |
| Species: | Human |
| Expression Host: | E. coli |
| Expression cDNA Clone or AA Sequence: | <u>MGSSHHHHHH SSGLVPRGSH</u> MAAQGEPQVQ FKLVLVGDGG TGKTTFVKRH LTGEFEKKYV ATLGVEVHPL VFHTNRGPIK FNVWDTAGQE KFGGLRDGYI IQAQCAIMF DVTSRVTYKN VPNWHRDLVR VCENIPIVLC GNKVDIKDRK VKAKSIVFHR KKNLQYYDIS AKSNYNFEKP FLWLARKLIG DPNLEFVAMP ALAPPEVMD PALAAQYEHD LEVAQTALP DEDDDL |
| Tag: | His-tag |
| Predicted MW: | 26.5 kDa |
| Concentration: | lot specific |
| Purity: | >90% by SDS - PAGE |
| Buffer: | Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol |
| Preparation: | Liquid purified protein |
| Protein Description: | Recombinant human RAN, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. |
| Storage: | Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing. |
| Stability: | Shelf life: one year from despatch. |
| RefSeq: | <u>NP_001287725</u> |
| Locus ID: | 5901 |
| UniProt ID: | <u>P62826</u> , <u>B4DV51</u> |
| Cytogenetics: | 12q24.33 |
| Synonyms: | ARA24; Gsp1; TC4 |



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Summary:

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. [provided by RefSeq, Jul 2008]

Protein Families:

Druggable Genome, Transcription Factors

Product images: