

## Product datasheet for PH308738

### RAN (NM\_006325) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	RAN MS Standard C13 and N15-labeled recombinant protein (NP_006316)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC208738
Predicted MW:	24.4 kDa
Protein Sequence:	>RC208738 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)  MAAQGEPQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQE KFGGLRDGYIQAQCAIIMFDVTSRVTYKNVNPWHRDLVRVCENIPIVLCGNKVDIKDRKVKAKSIVFHR KKNLQYYDISAKSNYNFEKPFLLARKLIGDPNLEFVAMPALAPPEVMDPALAAQYEHDLVAQTALP DEDDDL  <b>TRTRP</b> <b>LEQ</b> <b>KLISEEDLAANDILDYKDDDDK</b> <b>V</b>
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_006316</a>
RefSeq Size:	2546
RefSeq ORF:	648
Synonyms:	ARA24; Gsp1; TC4
Locus ID:	5901
UniProt ID:	<a href="#">P62826</a>



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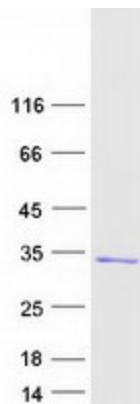
**Cytogenetics:** 12q24.33

**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:**



Coomassie blue staining of purified RAN protein (Cat# [TP308738]). The protein was produced from HEK293T cells transfected with RAN cDNA clone (Cat# [RC208738]) using MegaTran 2.0 (Cat# [TT210002]).