

## Product datasheet for SC125968

### RAN (BC016654) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RAN (BC016654) Human Untagged Clone
Tag:	Tag Free
Symbol:	RAN
Synonyms:	ARA24; Gsp1; guanosine triphosphatase Ran; member RAS oncogene family; OK/SW-cl.81; RAN, member RAS oncogene family; RanGTPase; ras-related nuclear protein; TC4
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for BC016654 edited

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CGGGCGGCTGAGTAGGTGGTGGTGCGGGCCCGGGCCGGGGCAGGAGACGGGCGTG
GGGTCGGCGCTAGCCCCGAGAACCCCCGTTTCATCCTCCGCTCTCATCCCCGTCCCGGT
CCCAGTCCCGTTCATCCCTACACCTCCGTCGCCGTTCCCCGGGCCCGCCGCCCGGG
ATGCCGGCCCCCGCCCGCCCTTCCCGCTCCAGGCCTGGCCGCCATGGCCCGCGGGCG
GGAGGCCTTTGTGGGGCGGGCACGTGGGGCGCTGGGGGGCGGGAGCGGGGCCCGCATGG
GCTGCGGGGCCGCGGAGCGCTCGCCTCCGTCCTCTGCCTCCGCAGGAACGCCGCGATGG
CTGCGCAGGGAGAGCCCCAGGTCCAGTTCAACTTGTATTGGTTGGTGGTGGTACTG
GAAAAACGACCTTCGTGAAACGTCATTTGACTGGTGAATTTGAGAAGAAGTATGTAGCCA
CCTTGGGTGTTGAGGTTCCATCCCTAGTGTCCACACCAACAGAGGACCTATTAAGTTCA
ATGTATGGGACACAGCCGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCC
AAGCCCAGTGTGCCATCATAATGTTTGTGTAACATCGAGAGTTACTTACAAGAATGTGC
CTAACTGGCATAGAGATCTGGTACGAGTGTGTGAAAACATCCCCATTGTGTTGTGTGGCA
ACAAAGTGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTCTCCACCGAAAGA
AGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTACAACCTTTGAAAAGCCCTTCC
TCTGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAAATTTGTTGCCATGCCTGCTC
TCGCCCCACCAGAAGTTGTATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAG
AGGTTGCTCAGACAACTGCTCTCCCGGATGAGGATGATGACCTGTGAGATGAAGCTGGA
GCCCAGCGTCAGAAGTCTAGTTTATAGGCAGCTGTCTGTGATGTCAGCGGTGCAGCGT
GTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTCATCTGTGGGATGCTGA
AGGAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTAAAAAATAACTTCATTGTTTGGG
CCTGCATATTTAGCTGTTTTGGAACGAGTTGATTCCTTGAGTTTCATATATAAGACTGC
TGCACTACATCACAATATTCAGTGGTGAATCTTGTGTTTACTGTCTATCCCATTCCT
TTTTGTTTGAATCAGAATAAAGTTGTATTTCAAATATCAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for BC016654 unedited GTCGGAATTTGTATACACTTACTATAGGCGGCCGCGNATTCANATCTGGTACCGGTCCGG AATTCCTCCGGGATATCGTCGACCCACGCGTCCGCGGGCGGCTGAGTAGGTGGGTGGTCCGG GCCCGGCCGGGGCCGGGGCAGGAGACGGGCGTGGGGTCGGCGCTAGCCCCGAGAACCCCC GTTTCATCCTCCGCTCTCATCCCCGTCCCGTCCCAGTCCCGTCCCATCCCTACACCTC CGTCCCGCGTTCCCGGGCCCCGCCGCCCGGATGCCGGCCCCGCCCGCCCTTCCCGC TCCCAGGCCTGGCCGCCATGGCGCCGCGGGCAGGAGCCTTTGTGGGGCGGGCACGTGGG GCGCTGGGGGCGCGGGAGCGGGGCCCATGGGCTGCGGGGCCGCGCAGCGCTCGCCTC CGTCTCTGCCTCCGCAGGAACGCCGCGATGGTGCGCAGGGAGAGCCCCAGGTCCAGTT CAAACTTGTATTGGTTGGTATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTT GACTGGTGAATTTGAGAAGAAGTATGTAGCCACCTTGGGTGTTGAGGTTCCATCCCCTAGT GTTCCACACCAACAGAGGACCTATTAAGTTCATGTATGGGACACAGCCGGCCAGGGAGAA TTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCAGTGTGCCCTCTTAATGTTTGAT GTAACATCGAAAGTAACTACCAGAATGTGCCTAACTGGCATAGAGATCTGGGACCAGTGT GGGAAAAACATTCCCATTGGTTGGGGGGCACCAAGGGGTTTTTAGGACGGGAAGGGAAGG CGAAATCCATTGGCTTCCCCCGAAGAGAAATTCATACTCCACATTTCTGCCCAAGTAA CCTCCCTTTGAAAAGCCTTTCCCTGGCT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	BC016654
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">BC016654.1</a></u> , <u><a href="#">AAH16654.1</a></u>
<b>RefSeq Size:</b>	1409 bp
<b>Locus ID:</b>	5901
<b>Cytogenetics:</b>	12q24.33
<b>Protein Families:</b>	Druggable Genome, Transcription Factors

**Gene 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]