

## Product datasheet for **RC224655**

### RAE1 (NM\_003610) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RAE1 (NM_003610) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAE1
Synonyms:	dj481F12.3; dj800J21.1; Gle2; MIG14; Mnrp41; MRNP41
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224655 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCCTGTTTGAACAACCTCAGGTTTTGGAACCACTGGGACCAGCATGTTTGGCAGTGCAACTACAG  
ACAATCACAATCCCATGAAGGATATTGAAGTAACATCATCTCCTGATGATAGCATTGGTTGTCTGTCTTT  
TAGCCACCAACCTTGCCGGGAACTTTCTTATTGCAGGATCATGGGCTAATGATGTTGCTGCTGGGAA  
GTTCAAGACAGTGGACAGACCATTCCAAAAGCCAGCAGATGCACACTGGCCTGTGCTTGTGTCTGCT  
GGAGTGACGATGGGAGCAAAGTGTACCGCATCGTGTGATAAACTGCCAAAATGTGGACCTCAGCAG  
TAACCAAGCGATACAGATCGCACAGCATGATGCTCCTGTTAAAACCATCCATTGGATCAAAGCTCCAAAC  
TACAGCTGTGTGATGACTGGGAGCTGGGATAAGACTTTAAAGTTTTGGGATACTCGATCGTCAAATCCTA  
TGATGGTTTTGCAACTCCCTGAAAGGTGTACTGTGCTGACGTGATATACCCCATGGCTGTGGTGGAAC  
TGCAGAGAGGGGCTGATTGTCTATCAGCTAGAGAATCAACCTTCTGAATTCAGGAGGATAGAATCTCCA  
CTGAAACATCAGCATCGGTGTGTGGCTATTTTTAAAGACAACAGAACAAGCCTACTGGTTTTGCCTGG  
GAAGTATCGAGGGGAGAGTTGCTATTCACTATATCAACCCCCGAACCCCGCCAAAGATAACTTCACCTT  
TAAATGTCATCGATCTAATGGAACCAACTTCAGCTCCTCAGGACATTTATGCGGTAATGGAATCGCG  
TTCCATCCTGTTTCATGGCACCTTGCAACTGTGGGATCTGATGGTAGATTGAGTTGAGTTGAGTTGAGTTG  
CCAGAACAAAATAAAAACCTTCGGAACAGTTAGATCAGCCATCTCAGCTTGTGTTCAATCACAATGG  
AAACATATTTGCATACGCTTCCAGCTACGACTGGTCAAAGGGACATGAATTTTATAATCCCAGAAAAAA  
AATTACATTTTCTGCGTAATGCAGCCGAAGAGCTAAAGCCAGGAATAAGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RC224655 protein sequence  
Red=Cloning site Green=Tags(s)

MSLFGTTSGFSGTSMFGSATTDNHNPMKDIEVTSSPDDSIGCLSFSPPTLPGNFLIAGSWANDVRCWE  
 VQDSGQTIPKAQQMHTGPVLDVCWSDDGSKVFTASCDKTAKMWDLSSNQAIQIAQHDAPVKTIHWIKAPN  
 YSCVMTGSWDKTLKFDTRSSNPMMVLQLPERCYCADVIYPMAVVATAERGLIVYQLENQPSFRRIESP  
 LKHQHRCVAIFKDKQNKPTGFALGSIIEGRVAIHYINPPNPAKDNFTFKCHRSTNTSAPQDIYAVNGIA  
 FHPVHGTLATVGSDFRFSFWDKARTKLTSEQLDQPIASACCFNHNGNIFAYASSYDWSKGHEFYNPQKK  
 NYIFLRNAAEELKPRNKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6377\\_h08.zip](https://cdn.origene.com/chromatograms/mk6377_h08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_003610

**ORF Size:** 1104 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** 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).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

**RefSeq:** [NM\\_003610.4](#)

**RefSeq Size:** 1815 bp

**RefSeq ORF:** 1107 bp

**Locus ID:** 8480

**UniProt ID:** [P78406](#)

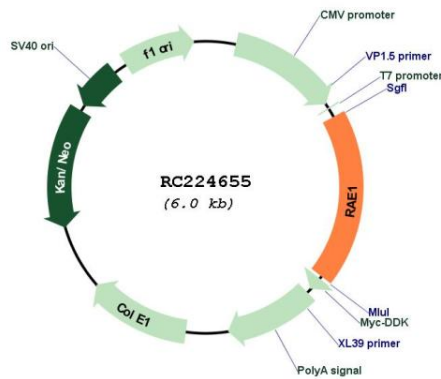
**Cytogenetics:** 20q13.31

**Domains:** WD40

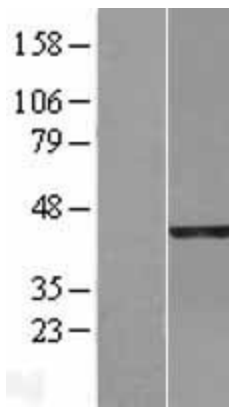
**MW:** 41 kDa

**Gene Summary:** Mutations in the *Schizosaccharomyces pombe* Rae1 and *Saccharomyces cerevisiae* Gle2 genes have been shown to result in accumulation of poly(A)-containing mRNA in the nucleus, suggesting that the encoded proteins are involved in RNA export. The protein encoded by this gene is a homolog of yeast Rae1. It contains four WD40 motifs, and has been shown to localize to distinct foci in the nucleoplasm, to the nuclear rim, and to meshwork-like structures throughout the cytoplasm. This gene is thought to be involved in nucleocytoplasmic transport, and in directly or indirectly attaching cytoplasmic mRNPs to the cytoskeleton. Alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

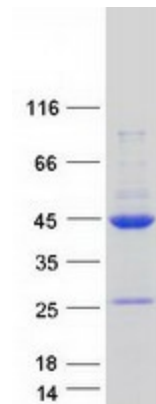
Product images:



Circular map for RC224655



Western blot validation of overexpression lysate (Cat# [LY418550]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224655 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAE1 protein (Cat# [TP324655]). The protein was produced from HEK293T cells transfected with RAE1 cDNA clone (Cat# RC224655) using MegaTran 2.0 (Cat# [TT210002]).