

Product datasheet for **RG224655**

RAE1 (NM_003610) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAE1 (NM_003610) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RAE1
Synonyms:	dj481F12.3; dj800J21.1; Gle2; MIG14; Mnrp41; MRNP41
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224655 representing NM_003610 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAGCCTGTTTGAACAACCTCAGGTTTTGGAACCAAGTGGGACCAGCATGTTTGGCAGTGCAACTACAG
ACAATCACAATCCCATGAAGGATATTGAAGTAACATCATCTCCTGATGATAGCATTGGTTGTCTGTCTTT
TAGCCCACCAACCTTGCCGGGAACTTTCTTATTGCAGGATCATGGGCTAATGATGTTGCTGCTGGGAA
GTTCAAGACAGTGGACAGACCATTCCAAAAGCCAGCAGATGCACACTGGGCTGTGCTTGTGTCTGCT
GGAGTGACGATGGGAGCAAAGTGTTCACGCATCGTGTGATAAACTGCCAAAATGTGGACCTCAGCAG
TAACCAAGCGATACAGATCGCACAGCATGATGCTCCTGTTAAAACCATCCATTGGATCAAAGCTCCAAAC
TACAGCTGTGTGATGACTGGGAGCTGGGATAAGACTTTAAAGTTTTGGGATACTCGATCGTCAAATCCTA
TGATGGTTTTGCAACTCCCTGAAAGGTGTACTGTGCTGACGTGATATACCCCATGGCTGTGGTGGAAC
TGCAGAGAGGGGCTGATTGTCTATCAGCTAGAGAATCAACCTTCTGAATTCAGGAGGATAGAATCTCCA
CTGAAACATCAGCATCGGTGTGTGGCTATTTTTAAAGACAACAGAACAAGCCTACTGGTTTTGCCTGG
GAAGTATCGAGGGGAGAGTTGCTATTCACTATATCAACCCCCGAACCCCGCCAAAGATAACTTCACCTT
TAAATGTCATCGATCTAATGGAACCAACTTCAGCTCCTCAGGACATTTATGCGGTAATGGAATCGCG
TTCCATCTGTTTCATGGCACCTTGCAACTGTGGATCTGATGGTAGATTGAGTTCTGGGACAAAGATG
CCAGAACAAAATAAAAACCTTCGGAACAGTTAGATCAGCCATCTCAGCTTGTGTTCAATCACAATGG
AAACATATTTGCATACGCTTCCAGCTACGACTGGTCAAAGGGACATGAATTTTATAATCCCAGAAAAAA
AATTACATTTTCTGCGTAATGCAGCCGAAGAGCTAAAGCCAGGAATAAGAAG

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG224655 representing NM_003610
 Red=Cloning site Green=Tags(s)

MSLFGTTSGFSGTSMFGSATTDNHNPMKDIEVTSSPDDSIGCLSFSPPTLPGNFLIAGSWANDVRCWE
 VQDSGQTIKPAQQMHTGPVLDVCWSDDGSKVFTASCDKTAKMWDLSSNQAIQIAQHDAPVKTIHWIKAPN
 YSCVMTGSWDKTLKFDWTRSSNPMMLVQLPERCYCADVIYPMAVVATAERGLIVYQLENQSEFRRIESP
 LKHQHRCVAIFKDKQNKPTGFALGSIIEGRVAIHYNPPNPAKDNFTFKCHRNGTNTSAPQDIYAVNGIA
 FHPVHGTLATVGSDFRFSFWDKARTKLTSEQLDQPIASACCFNHNGNIFAYASSYDWSKGHEFYNPQKK
 NYIFLRNAAEELKPRNKK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

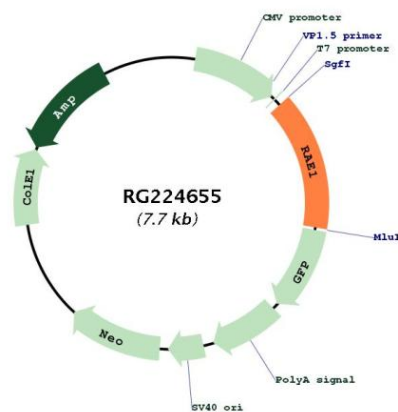
UniProt ID: [P78406](#)

Cytogenetics: 20q13.31

Domains: WD40

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 RG224655