

## Product datasheet for **RC205710**

### GTP binding protein era homolog (ERAL1) (NM\_005702) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GTP binding protein era homolog (ERAL1) (NM_005702) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GTP binding protein era homolog
Synonyms:	CEGA; ERA; ERA-W; ERAL1A; ERAL1B; H-ERA; HERA-A; HERA-B; PRLTS6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC205710 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCTGCCCCAGCTGGCGGGGCTAGGCTTGTTCATCGGTGTTAAGAGTCTGGCAGGTGGGCCCTC  
 ATGTCGCGAGGGAGCGGGTATCCCTTTTCTCACTCTTAGGCTTCCAACGAGGTGCGTGTCTGCGT  
 CGCGGGTCCGCTTTCTCTGGTCCCGCTTGGCTCGGCTTCTCGCAGTAAATGGCCAGGGCTCTGCCCTG  
 GACCACTTCTCGGATTCTCTAGCCCGACAGTTCGGTACTCCTTTCGTCGCCCGCGGTGTCCATGAACA  
 GAGATGAGCAGGATGTCTCTTGGTCCATCACCCTGATATGCCTGAGAATCCCGGGTCTACGAGTGGT  
 CCTCTGGGAGCCCCGAATGCAGGGAAGTCAACACTCTCCAACCAGCTACTGGGCCGAAAGGTGTTCCCT  
 GTTCCAGGAAGTGCATACTACTCGTGCCAAGCTCTGGGGTCAACAGAGAAGGAGACCCAGGTGA  
 TTCTACTTGACACACCTGGCATTATCAGTCTGGTAAACAGAAGGGCATCACCTGGAGCTCTTTTGT  
 GGAAGATCCATGGAAGAGCATGGAATCTGCTGATCTTGTGTGGTCTTGTGGATGTCTCAGACAAGTGG  
 ACACGGAACCAGCTCAGCCCCAGTTGCTCAGGTGCTTACCAAGTACTCCAGATCCCTAGTGTCTGG  
 TCATGAACAAGGTAGATTGTTTGAAGCAGAAGTCAAGTCTCTGGAGCTCACGGCAGCCCTCACTGAAGG  
 TGTGGTCAATGGCAAAAAGCTCAAGATGAGGCAGGCTTCCACTCACACCTGGCACCCATTGCCCCAGC  
 CCAGCAGTTAAGGACCCAAACACACAATCTGTGGGAAATCCTCAGAGGATTGGCTGGCCCCACTTCAAGG  
 AGATCTTCATGTTGTGAGCCCTAAGCCAGGAGGACGTGAAAACACTAAAGCAATACCTTCTGACACAGGC  
 CCAGCCAGGGCCCTGGGAGTACCACAGTGCAGTCTCTACTAGCCAGACACCAGAAGAGATCTGTGCCAAC  
 ATTATCCGAGAGAAGCTCCTAGAACCTGCCCCAGGAGTGCCTTACAATGTACAGCAGAAGACAGCAG  
 TGTGGGAGGAAGGACCAGGTGGGAGCTGGTTATCCAACAGAAGCTTCTGGTGCCCAAAGAATCTTATGT  
 GAAACTCCTGATTGGTCCGAAGGCCACGTGATCTCCAGATAGCACAGGAGGCCATGACCTCATG  
 GACATCTTCTCTGCGATGTTGACATCCGCTCTCTGTGAAGCTCCTCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205710 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAPSWRGARLVQSVLRVWQVGPVHVARERVIPFSSLLGFQRRVSCVAGSAFSGPRLASASRSNGQGSAL  
 DHFLGFSQPDSSVTPCVPVAVSMNRDEQDVLVHHPDMPENSRVLRVLLGAPNAGKSTLSNQLLGRKVFP  
 VSRKVHTTRCQALGVITEKETQVILLDTPGIISPQKQKRHHLELSLLEDPWKSMESADLVVVLVDVSDKW  
 TRNQLSPQLLRCLTKYSQIPSVLVMNKVDCLKQKSVLLELTAALTEGVVNGKCLKMRQAFHSHPGTHCPS  
 PAVKDPNTQSVGNPQRIGWPHFKEIFMLSALSQEDVKTLKQYLLTQAQPGPWEYHSAVLTSTPTEEICAN  
 IIREKLLLEHLPQEVVYNVQKTAVWEEGPGGELVIQQKLLVPKESYVKLLIGPKGHVISQIAQEAGHDLM  
 DIFLCDVDIRLSVKLLK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6176\\_h11.zip](https://cdn.origene.com/chromatograms/mk6176_h11.zip)

**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



ACCN: NM\_005702

ORF Size: 1311 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM\\_005702.4](#)

RefSeq Size: 1856 bp

RefSeq ORF: 1314 bp

Locus ID: 26284

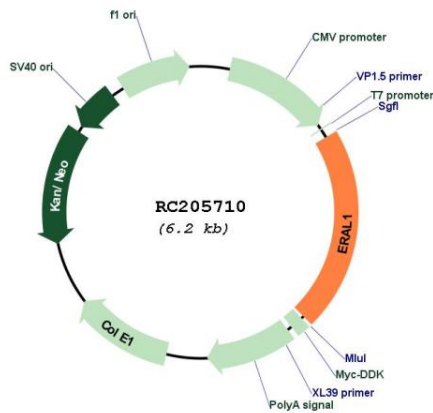
UniProt ID: [O75616](#)

Cytogenetics: 17q11.2

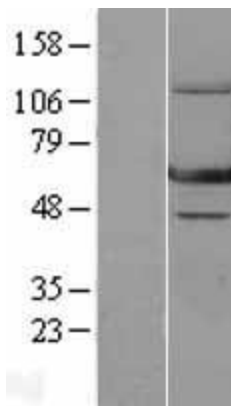
MW: 48.4 kDa

**Gene Summary:** The protein encoded by this gene is a GTPase that localizes to the mitochondrion. The encoded protein binds to the 3' terminal stem loop of 12S mitochondrial rRNA and is required for proper assembly of the 28S small mitochondrial ribosomal subunit. Deletion of this gene has been shown to cause mitochondrial dysfunction, growth retardation, and apoptosis. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2015]

**Product images:**



Circular map for RC205710



Western blot validation of overexpression lysate (Cat# [LY401739]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205710 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).