

## Product datasheet for **RC200007**

### **KDEL2 (NM\_006854) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KDEL2 (NM_006854) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KDEL2
Synonyms:	ELP-1; ELP1; ERD2.2; OI21
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC200007 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACATTTCCGGCTGACTGGGACCTGTCCACCTGGCGCCATCGTCATCCTGCTGCTGAAGATCT  
GGAAGACGCGCTCCTGCGCCGTATTTCTGGGAAAAGCCAGCTTCTGTTGCACTGGTCTTCACAACTCG  
TTACCTGGATCTTTTACTTCATTTATTTTCATTGTATAACACATCTATGAAGTTATCTACCTTGCCTGC  
TCCTATGCCACAGTGACCTGATCTACCTGAAATTTAAGGCAACCTACGATGGAAATCATGATACCTTCC  
GAGTGGAGTTTCTGGTGGTCCCTGTGGGAGGCCTCTCATTTTTAGTTAATCACGATTTCTCTCCTTTGA  
GATCCTCTGGACCTTCTCCATCTACCTGGAGTCCGTGGCTATCCTTCCGCAGCTGTTATGATCAGCAAG  
ACTGGGAGGCCGAGACCATCACCACTACTGTTCTTCTGGGCCTCTATCGTGCTTTGTATCTTG  
TCAACTGGATCTGGCGCTTCTACTTTGAGGGCTTCTTTGACCTCATTGCTGTGGTGGCCGGCGTAGTCCA  
GACCATCCTATACTGTGACTTCTTCTACTTGTACATTACAAAAGTACTCAAGGAAAGAAGCTCAGTTTG  
CCAGCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200007 protein sequence  
 Red=Cloning site Green=Tags(s)

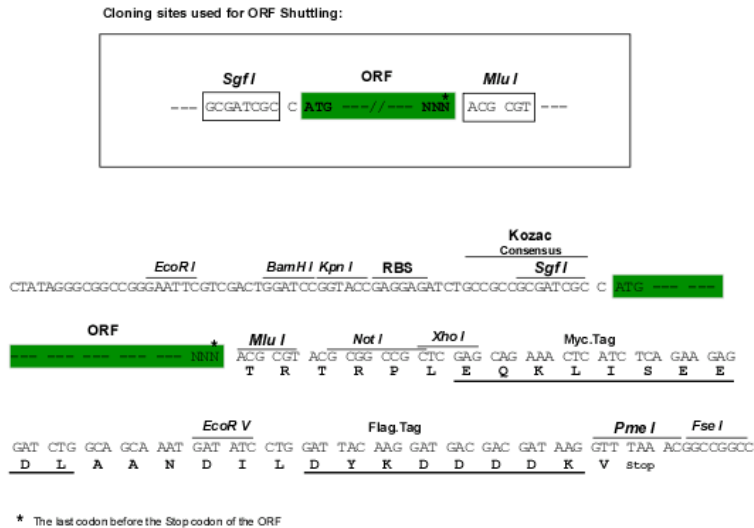
MNIFRLTGDLSHLAAIVILLKIKWTRSCAGISGKSQLLFALVFTRRYLDLFTSFISLYNTSMKVIYLAC  
 SYATVYLIYLKFKATYDGNHDTFRVEFLVVPVGGLSFLVNHDFSPLEILWTFISIYLESVAILPQLFMISK  
 TGEAETITTHYLFFLGLYRALYLVNWIWRFYFEGFFDLIAVVAGVVQTILYCDFVLYITKVLKGGKLSL  
 PA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

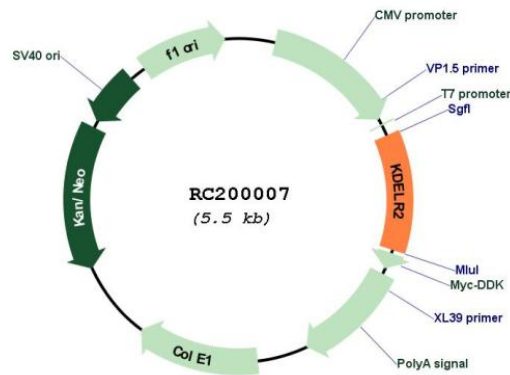
Chromatograms: [https://cdn.origene.com/chromatograms/mk6193\\_h04.zip](https://cdn.origene.com/chromatograms/mk6193_h04.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



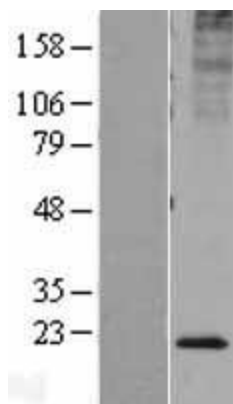
Plasmid Map:



ACCN: NM\_006854

ORF Size: 636 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_006854.2</a> , <a href="#">NP_006845.1</a>
<b>RefSeq Size:</b>	2874 bp
<b>RefSeq ORF:</b>	639 bp
<b>Locus ID:</b>	11014
<b>UniProt ID:</b>	<a href="#">P33947</a>
<b>Cytogenetics:</b>	7p22.1
<b>Domains:</b>	ER_lumen_recept
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Vibrio cholerae infection
<b>MW:</b>	24.4 kDa
<b>Gene Summary:</b>	Retention of resident soluble proteins in the lumen of the endoplasmic reticulum (ER) is achieved in both yeast and animal cells by their continual retrieval from the cis-Golgi, or a pre-Golgi compartment. Sorting of these proteins is dependent on a C-terminal tetrapeptide signal, usually lys-asp-glu-leu (KDEL) in animal cells, and his-asp-glu-leu (HDEL) in <i>S. cerevisiae</i> . This process is mediated by a receptor that recognizes, and binds the tetrapeptide-containing protein, and returns it to the ER. In yeast, the sorting receptor encoded by a single gene, ERD2, is a seven-transmembrane protein. Unlike yeast, several human homologs of the ERD2 gene, constituting the KDEL receptor gene family, have been described. KDEL2 was the second member of the family to be identified, and it encodes a protein which is 83% identical to the KDEL1 gene product. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008]

**Product images:**

Western blot validation of overexpression lysate (Cat# [LY402052]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200007 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).