

Product datasheet for **RC205880**

KDEL Receptor (KDEL1) (NM_006801) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KDEL Receptor (KDEL1) (NM_006801) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KDEL Receptor
Synonyms:	ERD2; ERD2.1; HDEL; PM23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205880 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATCTCTTCCGATTCTGGGAGACCTCTCCACCTCCTCGCCATCATCTTGCTACTGCTCAAAATCT
GGAAGTCCCGCTCGTGCGCCGAATTTACAGGAAGAGCCAGGTCCTGTTTGCTGTGGTGTCACTGCCCC
ATATCTGGACCTTTCACCAACTACATCTCACTCTACAACACGTGTATGAAGGTGGTCTACATAGCCTGC
TCCTTACCACGGTCTGGTTGATTTATAGCAAGTCAAAGCTACTTACGATGGGAACCATGACACGTTCA
GAGTGGAGTTCCTGGTCGTTCCACAGCCATTCTGGCGTTCCTGGTCAATCATGACTTCACCCCTCTGGA
GATCCTCTGGACCTTCTCCATCTACCTGGAGTCAGTGGCCATCTTGCCCGAGCTGTTTCATGGTGAGCAAG
ACCGGCGAGGCGGAGACCATCACAGCCACTACTGTTTGGCGTAGGCGTTTACCGCAGCCTCTATCTCT
TCAACTGGATCTGGCGCTACATTTTCGAGGGCTTCTTCGACCTCATCGCCATTGTGGCAGGCCTGGTCCA
GACAGTCTCTACTGCGATTTCTTCTACCTCTATATACCAAAGTCTAAAGGGGAAGAAGTTGAGTTTG
CCGGCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205880 protein sequence
 Red=Cloning site Green=Tags(s)

MNLFRLGDLSHLLAIILLLLKIWKSRSRSCAGISGKSQVLFVAVFTARYLDLFTNYISLYNTCMKVVIAC
 SFTTWWLIYSKFKATYDGNHDTFRVEFLVVPPTAILAFLVNHDFPLEILWTFISIYLESVAIPLQLFMVSK
 TGEAETITSHYLFALGVYRTLFLFNWIWRYHFEGFFDLIAIVAGLVQTVLYCDFVLYITKVLKGGKLSL
 PA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6066_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_006801

ORF Size: 636 bp

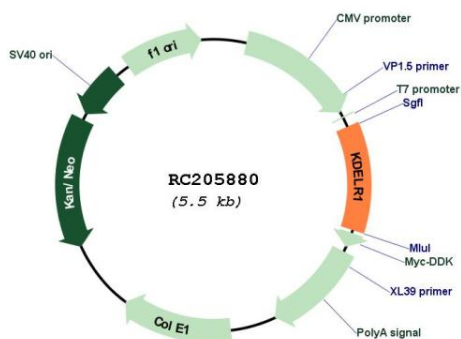
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

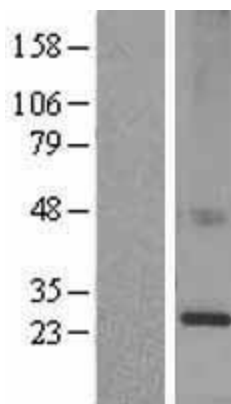
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_006801.3
RefSeq Size:	1575 bp
RefSeq ORF:	639 bp
Locus ID:	10945
UniProt ID:	P24390
Cytogenetics:	19q13.33
Domains:	ER_lumen_recept
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Vibrio cholerae infection
MW:	24.5 kDa
Gene Summary:	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, which is a seven-transmembrane protein. Unlike yeast, several human homologs of the ERD2 gene, constituting the KDEL receptor gene family, have been described. The protein encoded by this gene was the first member of the family to be identified, and it encodes a protein structurally and functionally similar to the yeast ERD2 gene product. [provided by RefSeq, Jul 2008]

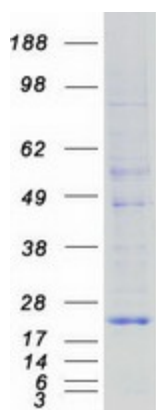
Product images:



Circular map for RC205880



Western blot validation of overexpression lysate (Cat# [LY416412]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205880 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KDEL1 protein (Cat# [TP305880]). The protein was produced from HEK293T cells transfected with KDEL1 cDNA clone (Cat# RC205880) using MegaTran 2.0 (Cat# [TT210002]).