

Product datasheet for **RG205880**

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:	TurboGFP
Symbol:	KDEL Receptor
Synonyms:	ERD2; ERD2.1; HDEL; PM23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG205880 representing NM_006801 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATCTCTTCCGATTCTGGGAGACCTCTCCACCTCCTCGCCATCATCTTGCTACTGCTCAAAATCT
GGAAGTCCCGCTCGTGCGCCGGAATTTAGGGAAGAGCCAGGTCCTGTTTGCTGTGGTGTCACTGCCCG
ATATCTGGACCTTTCACCAACTACATCTCACTCTACAACACGTGTATGAAGGTGGTCTACATAGCCTGC
TCCTTACCACGGTCTGGTTGATTTATAGCAAGTCAAAGCTACTTACGATGGGAACCATGACACGTTCA
GAGTGGAGTTCCTGGTCGTTCCACAGCCATTCTGGCGTTCCTGGTCAATCATGACTTCACCCCTCTGGA
GATCCTCTGGACCTTCTCCATCTACCTGGAGTCAGTGGCCATCTTGCCCGAGCTGTTTCATGGTGAGCAAG
ACCGGCGAGGCGGAGACCATCACCAGCCACTACTGTTTGGCGTAGGCGTTTACCGCAGCTCTATCTCT
TCAACTGGATCTGGCGCTACATTTTCGAGGGCTTCTTCGACCTCATCGCCATTGTGGCAGGCCTGGTCCA
GACAGTCTCTACTGCGATTTCTTCTACCTCTATATACCAAAGTCTAAAGGGGAAGAAGTTGAGTTTG
CCGGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG205880 representing NM_006801
 Red=Cloning site Green=Tags(s)

MNLFRLGDLSHLLAIILLKIKWSRSCAGISGKSQVLFVAVFTARYLDLFTNYISLYNTCMKVYIAC
 SFTTVWLIYSKFKATYDGNHDTFRVEFLVVPAILAFLVNHDFPLEILWTFESIYLESVAILPQLFMVSK
 TGEAETITSHYLFALGVYRTLYLFNWIWRYHFEGFFDLIAIVAGLVQTVLYCDFVLYITKVLKGGKLSL
 PA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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_006801.3](#)

RefSeq Size: 1575 bp

RefSeq ORF: 639 bp

Locus ID: 10945

UniProt ID: [P24390](#)

Cytogenetics: 19q13.33

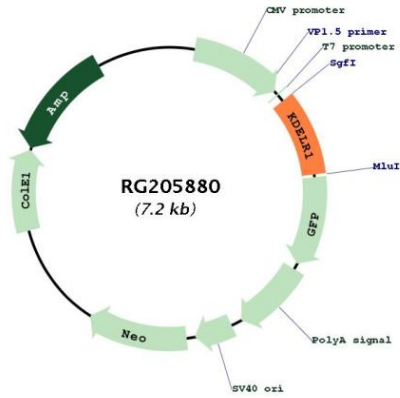
Domains: ER_lumen_recept

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Vibrio cholerae infection

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 *S. cerevisiae*. 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 RG205880