

Product datasheet for **SC316671**

KDEL2 (NM_001100603) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: KDEL2 (NM_001100603) Human Untagged Clone
Tag: Tag Free
Symbol: KDEL2
Synonyms: ELP-1; ELP1; ERD2.2; OI21
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >SC316671 representing NM_001100603.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGAACATTTTCCGGCTGACTGGGGACCTGTCCCACCTGGCGCCATCGTCATCCTGCTGCTGAAGATC
TGGAAGACGCGCTCCTGCGCCGGTATTTCTGGGAAAAGCCAGCTTCTGTTTGCCTGGTCTTCACAAC
CGTTACCTGGATCTTTTACTTCATTTATTTTATTGTATAACACATCTATGAAGTTATCTACCTTGCC
TGCTCCTATGCCACAGTGTACCTGATCTACCTGAAATTTAAGGCAACCTACGATGGAAATCATGATACC
TTCCGAGTGGAGTTTCTGGTGGTCCCTGTGGGAGGCCTCTCATTTTTAGTTAATCAGATTTCTCTCCT
CTTGAGTACTCAAGGAAAGAAGCTCAGTTTGCCAGCATAAGTGCCAAAGACCATCACCAGCATCTGTC
CTTCAGGGTGCTCGGACAGAATTTACCACAGCAAAGGCATAAGATGCTTGATACGGAAAATCAGAAA
CTTAACTCTTTTGTGCAGATAGTCATCAGTGGCTCTGTAAAAACGCAGAGGAAAAGAGCCAGAAGTT
TCTGTTAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: Sgfl-MluI
Plasmid Map: □
ACCN: NM_001100603
Insert Size: 561 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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.
RefSeq:	<u>NM_001100603.1</u>
RefSeq Size:	2621 bp
RefSeq ORF:	561 bp
Locus ID:	11014
UniProt ID:	<u>P33947</u>
Cytogenetics:	7p22.1
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Vibrio cholerae infection
MW:	21.2 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 *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, is a seven-transmembrane protein. Unlike yeast, several human homologs of the ERD2 gene, constituting the KDEL receptor gene family, have been described. KDELR2 was the second member of the family to be identified, and it encodes a protein which is 83% identical to the KDELR1 gene product. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) lacks an exon in the coding region, compared to variant 1, which results in a frameshift, compared to variant 1. The encoded isoform (2) has a longer and distinct C-terminus, compared to isoform 1.