

## Product datasheet for RC200959

### DERL1 (NM\_024295) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DERL1 (NM_024295) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DERL1
Synonyms:	DER-1; DER1; derlin-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200959 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGACATCGGAGACTGGTTCAGGAGCATCCCGGCGATCACGCGCTATTGGTTCGCCGCCACCGTCG  
CCGTGCCCTTGGTCGGCAAACCTCGGCCTCATCAGCCCGGCCTACCTCTTCTCTGGCCCCGAAGCCTTCT  
TTATCGCTTTAGATTTGGAGGCCAATCACTGCCACCTTTTATTTCCCTGTGGGTCCAGGAAGTGGATTT  
CTTTATTTGGTCAATTTATTTCTTATATCAGTATTCTACGCGACTTGAACAGGAGCTTTTGATGGGA  
GGCCAGCAGACTATTTATTCATGCTCCTCTTAACTGGATTTGCATCGTGATTACTGGCTTAGCAATGGA  
TATGCAGTTGCTGATGATTCCTCTGATCATGTCACTATTATGTCTGGGCCAGCTGAACAGAGACATG  
ATTGTATCATTTTGGTTTGAACACGATTTAAGGCCTGCTATTTACCCTGGGTTATCCTTGGATTCAACT  
ATATCATCGGAGGCTCGGTAATCAATGAGCTTATTGAAAATCTGGTTGGACATCTTTATTTTCTCAAT  
GTTCAGATACCAATGGACTTGGGAGGAAGAAATTTTCTATCCACACCTCAGTTTTTGTACCGCTGGCTG  
CCCAGTAGGAGAGGAGGAGTATCAGGATTTGGTGTGCCCCCTGCTAGCATGAGGCGAGCTGCTGATCAGA  
ATGGCGGAGGCGGAGACACAACCTGGGGCCAGGGCTTTCGACTTGGAGACCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC200959 protein sequence  
Red=Cloning site Green=Tags(s)

MSDIGDWFRSIPAITRYWFAATVAVPLVGKLG LISPAYLFLWPEAFLYRFQIWRPITATFYFPVPGTGF  
 LYL VNL YFLYQYSTRLETGAFDGRPADYLFMLLFNWICIVITGLAMDQLLMIPLIMSVLYVWAQLNRDM  
 IVSFWFGTRFKACYLPWVILGFNYIIGGSVINELIGNLVGHLYFFLMFRYPMDLGGRNFLSTPQFLYRWL  
 PSRRGGVSGFGVPPASMRRAADQNGGGGRHNWGGFRLGDQ

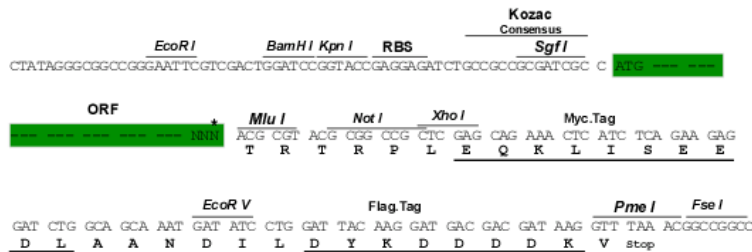
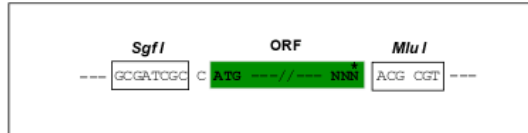
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6034\\_h12.zip](https://cdn.origene.com/chromatograms/mk6034_h12.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\_024295

**ORF Size:** 753 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\\_024295.6](#)

**RefSeq Size:** 3344 bp

**RefSeq ORF:** 756 bp

**Locus ID:** 79139

**UniProt ID:** [Q9BUN8](#)

**Cytogenetics:** 8q24.13

**Domains:** DER1

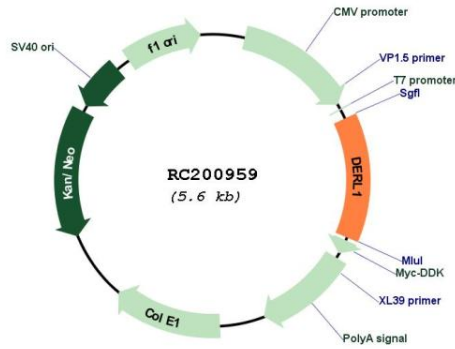
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Amyotrophic lateral sclerosis (ALS)

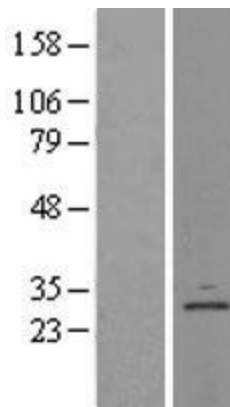
**MW:** 28.8 kDa

**Gene Summary:** The protein encoded by this gene is a member of the derlin family. Members of this family participate in the ER-associated degradation response and retrotranslocate misfolded or unfolded proteins from the ER lumen to the cytosol for proteasomal degradation. This protein recognizes substrate in the ER and works in a complex to retrotranslocate it across the ER membrane into the cytosol. This protein may select cystic fibrosis transmembrane conductance regulator protein (CFTR) for degradation as well as unfolded proteins in Alzheimer's disease. Alternative splicing results in multiple transcript variants that encode different protein isoforms. [provided by RefSeq, Aug 2012]

Product images:



Circular map for RC200959



Western blot validation of overexpression lysate (Cat# [LY402982]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200959 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).