

## Product datasheet for **RC203046**

### DERL2 (NM\_016041) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DERL2 (NM_016041) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DERL2
Synonyms:	CGI-101; derlin-2; DERtrin-2; F-LAN-1; F-LANa; FLANa
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203046 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTACCAGAGCTTGCGGCTGGAGTACCTGCAGATCCCACCGGTCAGCCGCGCTACACCACTGCCT  
GCGTCCTCACCACCGCCGCGTGCAGTTGGAATTGATCACACCTTTTCAGTTGTACTTCAATCCTGAATT  
AATCTTTAAACACTTTCAAATATGGAGATTAATCACCAACTTCTTATTTTTGGGCCAGTTGGATTCAAT  
TTTTTATTAACATGATTTTTCTATATCGTTACTGTGCAATGCTAGAAGAAGGCTCTTCCGAGGTCGGA  
CAGCAGACTTTGTATTTATGTTCTTTTTGGTGGATTCTTAATGACCCTTTTTGGTCTGTTGTGAGCTT  
AGTTTTCTGGGCCAGGCCCTTACAATAATGCTCGTCTATGTGTGGAGCCGAAGGAACCCCTATGTCCGC  
ATGAACTTCTTCGGCCTTCTCAACTCCAGGCCCTTTCTGCCCTGGGTGCTCATGGGATTTCTCTGT  
TGTTGGGGAACCAATCATTGTGGACCTTTTGGGTATTGCAGTTGGACACATATATTTTTCTTGGGAAGA  
TGATTTCCCAATCAACCTGGTGAATAAGAATTCTGAAAACACCATCTATTTTGAAGCTATTTTGTAT  
ACACCAGATGAGGATCCAAATTACAATCCACTACCTGAGGAACGGCCAGGAGGCTTCGCCTGGGTGAGG  
GCCAGCGCTTGGAGGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >RC203046 protein sequence  
 Red=Cloning site Green=Tags(s)

MAYQSLRLEYLQIPPVSRAYTTACVLTAAVQLELITPFQLYFNPELIFKHFQIWRLITNFFGPGVGFN  
 FLFNMIFLYRYCRMLEEGSFRGRTADFVFMFLFGGFLMTLFGFLVSLVFLGQAFITIMLVYWSRRNPYVR  
 MNFFGLLNFAQPFLPWVLMGFSLLLGNISIVDLLGIAGVGHYFFLEDVFPNQPGGIRILKTPSILKAIFD  
 TPDEDPNPNPLPEERPGGFAWGEGQRLGG

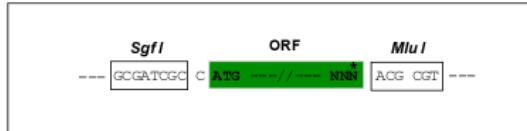
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6055\\_c12.zip](https://cdn.origene.com/chromatograms/mk6055_c12.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\_016041

**ORF Size:** 717 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\\_016041.5](#)

**RefSeq Size:** 1156 bp

**RefSeq ORF:** 720 bp

**Locus ID:** 51009

**UniProt ID:** [Q9GZP9](#)

**Cytogenetics:** 17p13.2

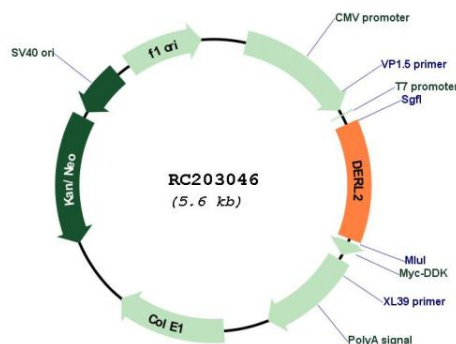
**Domains:** DER1

**Protein Families:** Transmembrane

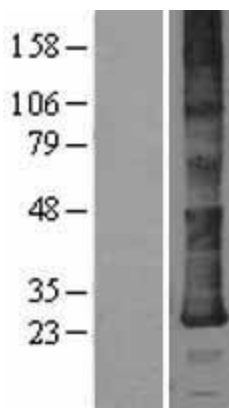
**MW:** 27.6 kDa

**Gene Summary:** Proteins that are unfolded or misfolded in the endoplasmic reticulum (ER) must be refolded or degraded to maintain the homeostasis of the ER. DERL2 is involved in the degradation of misfolded glycoproteins in the ER (Oda et al., 2006 [PubMed 16449189]).[supplied by OMIM, Mar 2008]

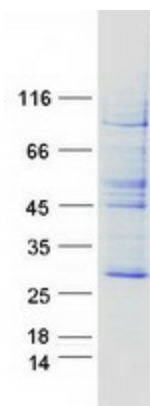
### Product images:



Circular map for RC203046



Western blot validation of overexpression lysate (Cat# [LY402491]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203046 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DERL2 protein (Cat# [TP303046]). The protein was produced from HEK293T cells transfected with DERL2 cDNA clone (Cat# RC203046) using MegaTran 2.0 (Cat# [TT210002]).