

## Product datasheet for **RC214842**

### **C1orf55 (SDE2) (NM\_152608) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	C1orf55 (SDE2) (NM_152608) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C1orf55
Synonyms:	C1orf55; dj671D7.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC214842 representing NM\_152608  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGAGGCCGCGCGCTGGTGTGGATTTCGCGCCCTGGCTTCGGGTGCAAGGCGGTGCGGTGTGCCT  
 CGGGTCGGTGCACCGTCCGGGATTTTATCCACCGCACTGCCAAGATCAGAATGTTCCAGTGAAAACTT  
 CTTTGTGAAATGCAATGGAGCACTCATTAAACACAGTGACACAGTGACAGCATGGAGCTGTTTATAGTTTG  
 GAACCCAGACTTTGCGGTGAAAAAGGAGGTTTTGGATCTATGCTCCGAGCACTTGGTGCTCAGATTGAGA  
 AGACAACCAATCGAGAAGCTTGTCCGGATCTCAGTGGAAGGAGACTACCGCATGTCAATCATGAAAAAGC  
 AATGGCTGAATGGTAAAACAACAAGCCGAGCGAGAGGCTGAAAAGGAGCAGAAGCGCTGGAGCGACTG  
 CAGCGGAAGCTTGTAGAACCAAGCACTGCTTACCAGCCCCGACTACCAGCAGCAGTCCATGAGATGG  
 CTGAGCGTCTGGAGGATCCGTCCTCAAAGGTATGCAGGCTGCCTCCAGCAAGATGGTTTCAGCAGAAAT  
 CAGTGAGAATCGAAAACGCAATGGCCTACTAAATCTCAAACAGACAGAGGAGCCAGTCCGGGAAAGAGG  
 AGATGCTTCTGGTTGGGCATGGAGGGACTAGAGACTGCAGAAGGTTCCAACCTCTGAGAGTTCAGATGATG  
 ACAGTGAAGAAGCACAAGCACTTCAGGAATGGGTTTCCATGCTCCAAAAATTGGTAGCAATGGTGTGCGA  
 GATGGCAGCCAAATTTCCAGTGGTTCTCAGAGGGCGAGAGTAGTGAATACAGACCATGGATCACCAGAA  
 CAACTGCAGATCCCGGTGACTGACTCTGGGAGGCATATTTTAGAAGACTCATGTGCTGAGCTGGGGGAGT  
 CCAAAGAGCACATGAAAAGCAGGATGGTTACAGAAACAGAAGAGACCCAGGAGAAGAAGGCAGAGAGTAA  
 AGAACCCATAGAAGAGGAGCCACTGGGGCTGGACTGAATAAGGATAAAGAGACAGAAGAAAGGACTGAT  
 GGGGAAAGAGTTGCTGAGGTAGCACCTGAAGAAAGGAAAACGTTGCCGTTGCCAAACTGCAGGAAAGCC  
 AGCCAGGAAACGCAGTTATTGATAAGGAACTATAGATTTATTGGCGTTACCTCTGTTGCAGATGGA  
 GTTGCTGGGTTTGGAGAAGCTCAAATGTGAACTGATGGCCCTTGGACTGAAATGTGGGGGCACTCTGCAG  
 GAGCGGGCAGCAAGACTTCTCTGTCTCAGAGGACTGGCAAAGGAGCAAATTGACCCGGCTTTATTTGCCA  
 AGCCTTTGAAAGGAAGAAAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC214842 representing NM\_152608  
 Red=Cloning site Green=Tags(s)

MAEAAALVWIRPGFGCKAVRCASGRCTVRDFIHRHCQDQNPVENFFVKCNGALINTSDTVQHGAVYSL  
 EPRLCGGKGGFGSMLRALGAQIEKTTNREACRDL SGRRLRDVNHEKAMA EWVKKQAEREAEKEQKRLERL  
 QRKLVKPKHCF TSPDYQQQCHEMAERLEDSVLKGMQAASSKMVSAEISENRKRQWPTKSQTDRGASAGKR  
 RCFWLGMGLETAEGSNSESSDDSEEPSTSGMGFHAPKIGSNGVEMAAKFPSGSQRARVVNTDHSPE  
 QLQIPVTDSGRHILEDSCAELGESKEHMSRMVTETEETQEKKAESKEPEEEPTGAGLNKDKETEERTD  
 GERVAEVAPEERENVAVAKLQESQPGNAVIDKETIDLLAFTSVAELLELLGLEKLC ELMALGLKCGGTLQ  
 ERAARLFSVRGLAKEQIDPALFAKPLKGGKK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8103\\_e03.zip](https://cdn.origene.com/chromatograms/mk8103_e03.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_152608

**ORF Size:** 1353 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_152608.4](#)

**RefSeq Size:** 4029 bp

**RefSeq ORF:** 1356 bp

**Locus ID:** 163859

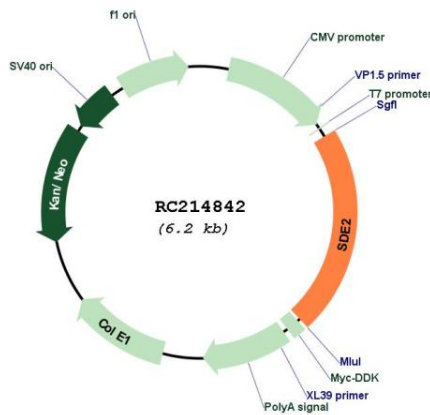
UniProt ID: [Q6IQ49](#)

Cytogenetics: 1q42.12

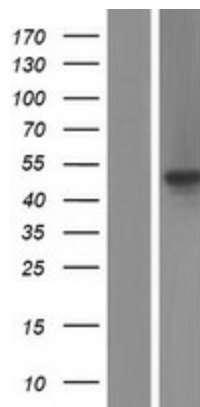
MW: 49.7 kDa

**Gene Summary:** Involved in both DNA replication and cell cycle control (PubMed:27906959). Unprocessed SDE2 interacts with PCNA via its PIP-box. The interaction with PCNA prevents monoubiquitination of the latter thereby inhibiting translesion DNA synthesis. The binding of SDE2 to PCNA also leads to processing of SDE2 by an unidentified deubiquitinating enzyme, cleaving off the N-terminal ubiquitin-like domain. The resulting mature SDE2 is degraded by the DCX(DTL) complex in a cell cycle- and DNA damage dependent manner (PubMed:27906959). Binding of SDE2 to PCNA is necessary to counteract damage due to ultraviolet light induced replication stress. The complete degradation of SDE2 is necessary to allow S-phase progression (PubMed:27906959).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RC214842



Western blot validation of overexpression lysate (Cat# [LY407413]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214842 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).