

## Product datasheet for RC201741

### PCNA (NM\_002592) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PCNA (NM_002592) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PCNA
Synonyms:	ATLD2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201741 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTTTCGAGGCGCGCCTGGTCCAGGGCTCCATCCTCAAGAAGGTGTTGGAGGCACTCAAGGACCTCATCA  
ACGAGGCCTGCTGGGATATTAGCTCCAGCGGTGTAACCTGCAGAGCATGGACTCGTCCCACGTCTCTTT  
GGTGCAGCTCACCTGCGGTCTGAGGGCTTCGACACCTACCGCTGCGACCGCAACCTGGCCATGGGCGTG  
AACCTCACAGTATGTCCAAAATACTAAAATGCGCCGGAATGAAGATATCATTACACTAAGGGCCGAAG  
ATAACGCGGATACCTTGGCGCTAGTATTGAAGCACCAAACCAGGAGAAAGTTTCAGACTATGAAATGAA  
GTTGATGGATTTAGATGTTGAACAACCTTGAATTCAGAACAGGAGTACAGCTGTGTAGTAAAGATGCC  
TCTGGTGAATTTGCACGTATATGCCGAGATCTCAGCCATATTGGAGATGCTGTTGTAATTTCTGTGCAA  
AAGACGGAGTGAATTTCTGCAAGTGGAGAAGCTTGGAAATGGAAACATTAATTTGTCACAGACAAGTAA  
TGTCGATAAAGAGGAGGAAGCTGTTACCATAGAGATGAATGAACCAAGTTCACACTAACTTTTGCACTGAGG  
TACCTGAACTTCTTTACAAAAGCCACTCCACTCTTCAACGGTGACACTCAGTATGTCTGCAGATGTAC  
CCCTTGTGTAGATATAAATTTGCGGATATGGGACACTAAAATACTACTTGGCTCCCAAGATCGAGGA  
TGAAGAAGGATCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201741 protein sequence  
 Red=Cloning site Green=Tags(s)

MFEARLVQGSILKKVLEALKDLINEACWDISSSGVNLQSMDSHVSLVQLTLRSEGFDTYRCDRNLAMGV  
 NLTSMKILKCAGNEDIITLRAEDNADTLALVFEAPNQEKVSDYEMKMLMDLDVEQLGIPEQEYSCVVKMP  
 SGFEFARICRDLSHIGDAVVISCAKDGKVFASGELGNGNIKLSQTSNVDKEEEEAVTIEMNEPVQLTFALR  
 YLNFFTKATPLSSTVTLSMSADVPLVVEYKIADMGLKYYLAPKIEDEEGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6142\\_c07.zip](https://cdn.origene.com/chromatograms/mk6142_c07.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\_002592

**ORF Size:** 783 bp

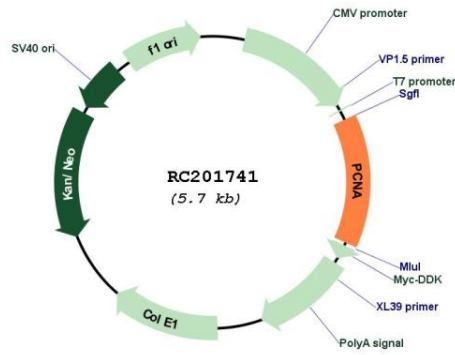
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

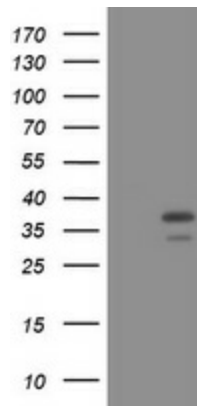
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_002592.2</a></u> , <u><a href="#">NP_002583.1</a></u>
<b>RefSeq Size:</b>	1355 bp
<b>RefSeq ORF:</b>	786 bp
<b>Locus ID:</b>	5111
<b>UniProt ID:</b>	<u><a href="#">P12004</a></u>
<b>Cytogenetics:</b>	20p12.3
<b>Domains:</b>	PCNA
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency
<b>Protein Pathways:</b>	Base excision repair, Cell cycle, DNA replication, Mismatch repair, Nucleotide excision repair
<b>MW:</b>	28.8 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is found in the nucleus and is a cofactor of DNA polymerase delta. The encoded protein acts as a homotrimer and helps increase the processivity of leading strand synthesis during DNA replication. In response to DNA damage, this protein is ubiquitinated and is involved in the RAD6-dependent DNA repair pathway. Two transcript variants encoding the same protein have been found for this gene. Pseudogenes of this gene have been described on chromosome 4 and on the X chromosome. [provided by RefSeq, Jul 2008]

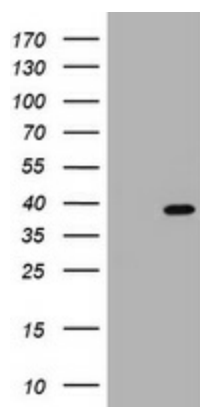
Product images:



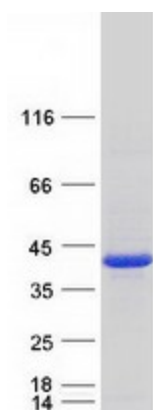
Circular map for RC201741



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PCNA (Cat# RC201741, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PCNA (Cat# [TA800894]). Positive lysates [LY400929] (100ug) and [LC400929] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY405433]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC209379] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PCNA protein (Cat# [TP301741]). The protein was produced from HEK293T cells transfected with PCNA cDNA clone (Cat# RC201741) using MegaTran 2.0 (Cat# [TT210002]).