

Product datasheet for **RC237121**

RPA34 (RPA2) (NM_001297558) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RPA34 (RPA2) (NM_001297558) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RPA2
Synonyms: REPA2; RP-A p32; RP-A p34; RPA32
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC237121 representing NM_001297558
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGGCAGAGGAGACAGGAACAAGCGTAGCATCCGTGGATTTCGAAAGCTATGGCAGCTCCTCATACGGGG
GAGCCGGCGGCTACACGCAGTCCCCGGGGGCTTTGGATCGCCCCACCTTCTCAAGCCGAAAAGAAATC
AAGAGCCCGAGCCAGCACATTGTGCCCTGTACTATATCTCAGCTGCTTTCTGCCACTTTGGTTGATGAA
GTGTTCCAGAAATGGGAATGTTGAGATTTACAGGTCACTATTGTGGGGATCATCAGACATGCAGAGAAGG
CTCCAACCAACATTGTTTACAAAATAGATGACATGACAGCTGCACCCATGGACGTTCCAGTGGGTTGA
CACAGATGACACCAGCAGTGAACACTGTGGTTCCTCCAGAAACATATGTGAAAGTGGCAGGCCACCTG
AGATCTTTTCAGAACAAAAGAGCCTGGTAGCCTTTAAGATCATGCCCTGGAGGATATGAATGAGTTCA
CCACACATATTCTGGAAGTGATCAATGCACACATGGTACTAAGCAAAGCCAACAGCCAGCCCTCAGCAGG
GAGAGCACCTATCAGCAATCCAGGAATGAGTGAAGCAGGGAACCTTTGGTGGGAATAGCTTCATGCCAGCA
AATGGCCTCACTGTGGCCAAAACCAGGTGTTGAATTTGATTAAGGCTTGCCAAGACCTGAAGGGTTGA
ACTTTCAGGATCTCAAGAACCAGCTGAAACACATGTCTGTATCCTCAATCAAGCAAGCTGTGGATTTCT
GAGCAATGAGGGGCACATCTATTCTACTGTGGATGATGACCATTTAAATCCACAGATGCAGAA

ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC237121 representing NM_001297558
Red=Cloning site Green=Tags(s)

MGRGDRNKR SIRGFESYGSSSYGGAGGYTQSPGGFGSPAPSQAEEKSRARAQHIVPCTISQLLSATLVDE
 VFRIGNVEISQVTIVGIIRHAEKAPTNIYVKIDDMTAAPMDVRQWVDTDDTSSSENTVVPETYVKVAGHL
 RSFQNKSLVAFKIMPLEDMNEFTTHILEVINAHMVL SKANSQPSAGRAPISNPGMSEAGNFGGNSFMPA
 NGLTVAQNQVLNLKACPRPEGLNFQDLKNQLKHMVSVSSIKQAVDFLSNEGHIYSTVDDDFKSTDAE

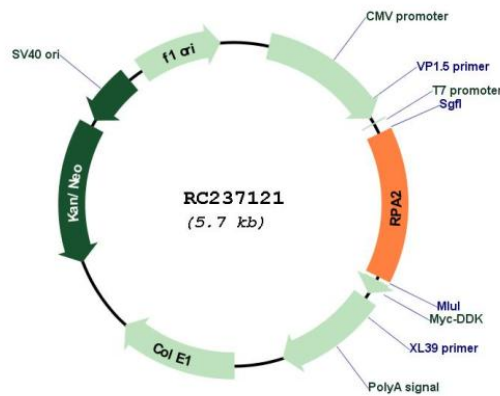
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001297558
ORF Size: 834 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:	<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:	NM_001297558.1 , NP_001284487.1
RefSeq Size:	1626 bp
RefSeq ORF:	837 bp
Locus ID:	6118
UniProt ID:	P15927
Cytogenetics:	1p35.3
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	DNA replication, Homologous recombination, Mismatch repair, Nucleotide excision repair
MW:	30.6 kDa

Gene Summary:

This gene encodes a subunit of the heterotrimeric Replication Protein A (RPA) complex, which binds to single-stranded DNA (ssDNA), forming a nucleoprotein complex that plays an important role in DNA metabolism, being involved in DNA replication, repair, recombination, telomere maintenance, and co-ordinating the cellular response to DNA damage through activation of the ataxia telangiectasia and Rad3-related protein (ATR) kinase. The RPA complex protects single-stranded DNA from nucleases, prevents formation of secondary structures that would interfere with repair, and co-ordinates the recruitment and departure of different genome maintenance factors. The heterotrimeric complex has two different modes of ssDNA binding, a low-affinity and high-affinity mode, determined by which oligonucleotide/oligosaccharide-binding (OB) domains of the complex are utilized, and differing in the length of DNA bound. This subunit contains a single OB domain that participates in high-affinity DNA binding and also contains a winged helix domain at its carboxy terminus, which interacts with many genome maintenance protein. Post-translational modifications of the RPA complex also plays a role in co-ordinating different damage response pathways. [provided by RefSeq, Sep 2017]