

Product datasheet for **MR200594**

Rpa3 (NM_026632) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rpa3 (NM_026632) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Rpa3
Synonyms: 14kDa; C330026P08Rik
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR200594 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGGACATAATGCAGCTCCCCAAAGCGCGCTCAACGCCAGCATGTTACCACAGTATATCGACCGGC
 CCGTGTGCTTCGTGGGAAGCTGGAAAAGATTCATCCACTGGAAAAATGTTTATTCTTTCAGATGGAGA
 AGGAAAAATGGAACCATTTGAATTGATGGAGCCACTTGACGAGGAAATCTCTGGGATTGTAGAAGTAGTT
 GGGAAAGTCACAGCCAAGCGACCGTCTGTGCATCTTATACCCTGTTAAGGAAGATACTAATCGT
 TTGATCTTGAACCTTACAATGAAGCTGTGAAAATTATCAATGAGCTTCTCAGTTTTCCCTGTAGGCT
 TCCACAACATGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR200594 protein sequence
 Red=Cloning site Green=Tags(s)
 MEDIMQLPKARVNASMLPQYIDRPVCFVGKLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVV
 GKVTAKATVLCASYTLFKEDTNRFDLELYNEAVKIINELPQFFPVGLPQHE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_026632

ORF Size: 366 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_026632.4](#)

RefSeq Size: 655 bp

RefSeq ORF: 366 bp

Locus ID: 68240

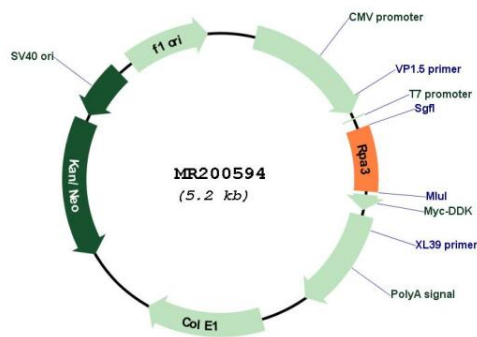
UniProt ID: [Q9CQ71](#)

Cytogenetics: 6 A1

MW: 13.6 kDa

Gene Summary: As part of the heterotrimeric replication protein A complex (RPA/RP-A), binds and stabilizes single-stranded DNA intermediates, that form during DNA replication or upon DNA stress. It prevents their reannealing and in parallel, recruits and activates different proteins and complexes involved in DNA metabolism. Thereby, it plays an essential role both in DNA replication and the cellular response to DNA damage. In the cellular response to DNA damage, the RPA complex controls DNA repair and DNA damage checkpoint activation. Through recruitment of ATRIP activates the ATR kinase a master regulator of the DNA damage response. It is required for the recruitment of the DNA double-strand break repair factors RAD51 and RAD52 to chromatin, in response to DNA damage. Also recruits to sites of DNA damage proteins like XPA and XPG that are involved in nucleotide excision repair and is required for this mechanism of DNA repair. Plays also a role in base excision repair (BER), probably through interaction with UNG. Also recruits SMARCAL1/HARP, which is involved in replication fork restart, to sites of DNA damage. May also play a role in telomere maintenance. RPA3 has its own single-stranded DNA-binding activity and may be responsible for polarity of the binding of the complex to DNA.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR200594