

Product datasheet for **MC204693**

Rpa3 (NM_026632) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rpa3 (NM_026632) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rpa3
Synonyms:	14kDa; C330026P08Rik
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC028489 GCAGAATCATGGAGGACATAATGCAGCTCCCCAAAGCGCGCTCAACGCCAGCATGTTACCACAGTATAT CGACCGCCCGTGTGCTTCGTGGGAAGCTGGAAAAGATTCATCCCACTGGAAAAATGTTTATTCTTTCA GATGGAGAAGGAAAAATGGAACCAATTGAATTGATGGAGCCACTTGACGAGGAAAATCTCTGGATTGTAG AAGTAGTTGAAAAAGTCACAGCCAAGGCCACCGTCTGTGCATCTTATACCCTGTTTAAGGAAGATAC TAATCGCTTTGATCTTGAACCTTACAATGAAGCTGTGAAAATTATCAATGAGCTTCCTCAGTTTTCCCT GTAGGGCTTCCACAACATGAATGAGCTTCTCAGTTTCTTAAGATTGCCAGGAAGCTACACTGAAGGCTA TTAAGGAAGAGTCCTGCAGTTAATGGAGCGACTCCTATAATTTCTAATATTTAATTTGTTCTTTTATAT ATATTTTTTTTTGTAATCTATTATGACAGTTTACAATAAGCCTTTTTATAAACTTTTTTAAAAAGTGA TACTTCAATATATGGTCTGAATAATAAAAAATCAAAAATATGAAAAAAAAAAAAAAAAAAAAA
Restriction Sites:	EcoRI-NotI
ACCN:	NM_026632
Insert Size:	366 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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).



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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: [BC028489](#), [AAH28489](#)

RefSeq Size: 623 bp

RefSeq ORF: 366 bp

Locus ID: 68240

UniProt ID: [Q9CQ71](#)

Cytogenetics: 6 A1

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]