

Product datasheet for **MC219833**

Rpa1 (NM_026653) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rpa1 (NM_026653) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rpa1
Synonyms:	70kDa; 5031405K23Rik; AA589576; AW557552; RF-A; RP-A; Rpa
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC219833 representing NM_026653
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGGGACACCTGAGCGAGGGGGCCATCGAGGTCATGATACAGCAGGAAAATACATCCATAAAGCCCA
 TCCTGCAGGTCATTAACATCCGTCCCATTCTACAGGGAATAGGTCACCCCGGTACCGACTGCTCATGAG
 TGATGGGTTGAACACGCTTTCCTCGTTCATGCTGGCCACGCAGCTGAACACCCTGGTCGAGGGAGGGCAG
 CTGGCCAGCAACTGTGTCTGCCAGGTCACAAAGTTCATCGTCAACACCCTGAAAGACGGCAGGAAAGTAG
 TTGTTTTGATGGACTTGAAGTTATGAAATCTGCTGAAGACGTTGGATTAAGATTGGGAATCCAGTGCC
 CTATAATGAAGGATATGGGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAAGCAGTCCCTTCCCA
 GCCTCTGCAGCGACACCACGCGCAAGCCCCAGCCACAGAATGGGAGTCTGGGAATGGGTTCCACTG
 CAGCTAAGGCTTATGGTGCCTCAAAGCCATTTGAAAACCTGCCGGAACGGCCTGCTGCAGCCTCAGG
 TGGGACACAGTCCAAAGTGGTGCCTCGCCAGCCTCACCCCGTACCAGTCCAAGTGGACTATTTGTGCC
 CGTGTCACCAACAAAAGTCAGATCCGCACCTGGAGTAATTCGCCGGGGGAAGGAAAGCTTTTCTCTCTAG
 AACTTGTGGATGAAAGCGGTGAAATCAGAGCTACTGCTTCAATGAGCAAGTGGACAAGTCTTTCCCT
 TATTGAAGTGAACAAGGTGATTACTTCTCAAAGGGCGCCTGAAGATCGCTAACAAACAGTTCTCCGCT
 GTTAAAAATGACTATGAGATGACCTTCAATAATGAGACTTCTGTCTTCCCTGTGAAGATGGCCATCACT
 TACCCACAGTTCAAGTTGATTTTACAGGGATCGGTGACCTAGAGAGCAAGGCTAAAGACGCACTAGTAGA
 CATCATTGGAATCTGCAAGAGCTATGAAGATTCGATTAATACAGTGAAGTGAACAACAGAGAAGTT
 GCTAAGAGAAAATCTATTTGATGGACATGTGAGGAAGTGGTGACCACAACCTGTGGGGAGAAGATG
 CTGACAAGTTTGACGGCTCTCGGCAGCCCGTATGGCCATCAAAGGAGCCCGAGTCTGACTTCGGTGG
 ACGGAGCCTCTCGGTCTCTCATCCAGCACTGTCAATTGTGAATCCTGACATCCCAGAGGCCATAAGCTT
 CGTGGCTGGTTTGACTCAGAAGGACAAGCCTTAGATGGTGTTCATCTCTGACCACAGGAGTGGAGGGG
 CCGGAGGGGGCAACCAACTGGAAAACCTTGCATGAGGCTAAATCTGAGAACCTGGGCCAGGGAGACAA
 GGCGGACTATTTCAGCACTGTGGCAGCGGTGGTGTTCCTCGCAAAGAGAACTGTATGTACCAGGCTGC
 CCAACCCAGGACTGCAATAAGAAAGTATTGACCAGCAGAATGGGTTGTACCGCTGTGAGAAGTGTGACC
 GGAATTTCCCAATTTCAAATACCGCATGATCTTATCGGCAAATATTGCAGATTTTCAAGAGAACCAGTG
 GGTGACGTGTTTCCAGGAGTCTGCAGAGGCCATCCTTGGACAGAACTATGTACCTTGGGAACTCAA
 GAGAAGAACGAGCAGGCTTTGAAGAGTTTCCAGAATGCCAATTCGGTCTTTACGTTTCAAGATCA
 GGGTCAAGCTGGAGACCTACAATGATGAATCTCGAATTAAAGGCCACTGTGATGGACGTGAAGCCCGTGA
 CTTAGAGACTATGGCAGACGGCTGATCGGAACATCAGGAAGAACATG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_026653
- Insert Size:** 1872 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).

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_026653.2](#), [NP_080929.1](#)

RefSeq Size: 3058 bp

RefSeq ORF: 1872 bp

Locus ID: 68275

UniProt ID: [Q8VEE4](#)

Cytogenetics: 11 45.79 cM

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.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks an alternate in-frame exon in the 5' coding region, compared to variant 1. The resulting isoform (2) lacks an alternate segment, compared to isoform 1.