

## Product datasheet for **MG200594**

### Rpa3 (NM\_026632) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rpa3 (NM\_026632) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Rpa3  
**Synonyms:** 14kDa; C330026P08Rik  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG200594 representing NM\_026632  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGGACATAATGCAGCTCCCAAAGCGCGTCAACGCCAGCATGTTACCACAGTATATCGACCGGC  
CCGTGTGCTTCGTGGGAAGCTGGAAAAGATTCATCCCACTGGAAAAATGTTTATCTTTTCAGATGGAGA  
AGGAAAAATGGAACCATGAATTGATGGAGCCACTTGACGAGGAAATCTCTGGATTGTAGAAGTAGTT  
GGAAAAGTCACAGCCAAGCGACCGTCTGTGCATCTTATACCCTGTTAAGGAAGATACTAATCGT  
TTGATCTTGAACCTTACAATGAAGCTGTGAAAATTATCAATGAGCTTCTCAGTTTTCCCTGTAGGCT  
TCCACAACATGAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG200594 representing NM\_026632  
Red=Cloning site Green=Tags(s)  
MEDIMQLPKARVNASMLPQYIDRPVCFVGKLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVV  
GKVTAKATVLCASYTLFKEDTNRFDLELYNEAVKIINELPQFFPVLQHE

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



[View online »](#)



<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>RefSeq:</b>	<a href="#">NM_026632.4</a>
<b>RefSeq Size:</b>	610 bp
<b>RefSeq ORF:</b>	366 bp
<b>Locus ID:</b>	68240
<b>UniProt ID:</b>	<a href="#">Q9CQ71</a>
<b>Cytogenetics:</b>	6 A1
<b>Gene Summary:</b>	<p>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]</p>