

# Product datasheet for MG200594

# Rpa3 (NM\_026632) Mouse Tagged ORF Clone

## **Product data:**

#### OriGene Technologies, Inc.

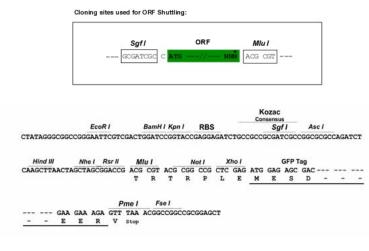
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Product Type:	Expression Plasmids
Product Name:	Rpa3 (NM_026632) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rpa3
Synonyms:	14kDa; C330026P08Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG200594 representing NM_026632 Red=Cloning site Blue=ORF Green=Tags(s)
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCC <mark>GCGATCGC</mark> C
	ATGGAGGACATAATGCAGCTCCCCAAAGCGCGCGTCAACGCCAGCATGTTACCACAGTATATCGACCGGC CCGTGTGCTTCGTGGGGAAGCTGGAAAAGATTCATCCCACTGGAAAAATGTTTATTCTTTCAGATGGAGA AGGAAAAAATGGAACCATTGAATTGA
	ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA
Protein Sequence:	>MG200594 representing NM_026632 <mark>Red</mark> =Cloning site Green=Tags(s)
	MEDIMQLPKARVNASMLPQYIDRPVCFVGKLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVV GKVTAKATVLCASYTLFKEDTNRFDLELYNEAVKIINELPQFFPVGLPQHE
	TRTRPLE - GFP Tag - V
<b>Restriction Sites:</b>	Sgfl-Mlul

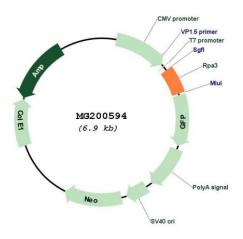


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#### **Cloning Scheme:**



Plasmid Map:



ACCN.	
ORF Size:	
OTI Disclaimer:	

ACCNI

## NM\_026632

#### 363 bp

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. <u>More info</u>

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Service Press (NM_026632) Mouse Tagged ORF Clone – MG200594		
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> <li>Centrifuge at 5,000xg for 5min.</li> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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>	
RefSeq:	<u>NM 026632.4</u>	
RefSeq Size:	610 bp	
RefSeq ORF:	366 bp	
Locus ID:	68240	
UniProt ID:	<u>Q9CQ71</u>	
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 PDA complex controls DNA repeir and DNA damage.	

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]

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