

### Product datasheet for MR200594L4

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

#### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Rpa3 (NM\_026632) Mouse Tagged Lenti ORF Clone

Tag: mGFP Symbol: Rpa3

Synonyms: 14kDa; C330026P08Rik

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(MR200594).

Sequence:

: Sgfl-Mlul

Restriction Sites: Cloning Scheme:





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_026632

ORF Size: 363 bp



**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com

#### Rpa3 (NM\_026632) Mouse Tagged Lenti ORF Clone - MR200594L4

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

RefSeq: <u>NM 026632.1</u>

RefSeq Size: 655 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

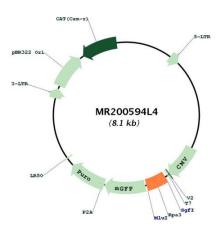
replication fork restart, to sites of DNA damage. May also play a role in telomere

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]



# **Product images:**



Circular map for MR200594L4