OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC200287

RPA14 (RPA3) (NM_002947) Human 3' UTR Clone

Product data:

Product Type:	3' UTR Clones
Product Name:	RPA14 (RPA3) (NM_002947) Human 3' UTR Clone
Symbol:	RPA14
Synonyms:	REPA3; RP-A p14
Mammalian Cell Selection:	Neomycin
Vector:	pMirTarget (PS100062)
ACCN:	NM_002947
Insert Size:	512 bp
Insert Sequence:	>SC200287 3'UTR clone of NM_002947 The sequence shown below is from the reference sequence of NM_002947. The complete sequence of this clone may contain minor differences, such as SNPs. Blue=Stop Codon Red=Cloning site GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAGGCCAAGAAGGGCGGAAAGATCGCCGTG TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC TATCCTTTAGGGATTGTGCAACATGATTGATCTTGATGGATTTTCATACGATTGTAAATGAGCTATATT AAAGTCTATTAAAGGAAGCCCTTCTTGTTTGAGGGAGAGATTTCTGTGCTTTCTCATATTTAATTTGCT GTTTTTAAGATATTCCAACCTAGAGTTTTTGATGGAACTGATATATTGACAGTTCTCACCGAAGTCCTT TTATAAAGAATTGCTACTCCAATATATGGTCAGATTAGATGCAAGAATAAAGCAGTTGTCCGAGTCTAA GTTTCTATTTTATTAATAAAAACTAAAATGGTACGTACTATCGGTCATTTCATTTTCATTCTTTTAATC ATGTATTCAAGCACAAACTTGAAATTTCATAGCCATAAGGTCAAGATTTAGACCTACCAAATAAAACCT TGGGCCAGCTGTGTTAAGGATTTGCTCACCTTTTCCCAAACTATACCTTGATAATTATTTCCTTGATAC CCTACTTACAAAATGAAGTAGATGACATT ACGCGTAAGCGGCCGCGGCATCTAGATTCGAAGAAAATGACCGACCAAGCGACGCCCAACCTGCCATCA CGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGG
Restriction Sites:	SgfI-MluI
OTI Disclaimer:	Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences , e.g., single nucleotide polymorphisms (SNPs).

View online »

Components: The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.

RefSeq: NM_002947.5

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 (PubMed:9430682). 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 (PubMed:24332808). 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 (PubMed:7697716). Plays also a role in base excision repair (BER), probably through interaction with UNG (PubMed:9765279). 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 (PubMed:19010961). As part of the alternative replication protein A complex, aRPA, binds single-stranded DNA and probably plays a role in DNA repair. Compared to the RPA2-containing, canonical RPA complex, may not support chromosomal DNA replication and cell cycle progression through S-phase. The aRPA may not promote efficient priming by DNA polymerase alpha but could support DNA synthesis by polymerase delta in presence of PCNA and replication factor C (RFC), the dual incision/excision reaction of nucleotide excision repair and RAD51-dependent strand exchange (PubMed:19996105).[UniProtKB/Swiss-Prot Function]

Locus ID: 6119

MW: 19.9