

Product datasheet for **RC202066L2V**

RPA70 (RPA1) (NM_002945) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	RPA70 (RPA1) (NM_002945) Human Tagged ORF Clone Lentiviral Particle
Symbol:	RPA70
Synonyms:	HSSB; MST075; REPA1; RF-A; RP-A; RPA70
Mammalian Cell Selection:	None
Vector:	pLenti-C-mGFP (PS100071)
Tag:	mGFP
ACCN:	NM_002945
ORF Size:	1848 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC202066).
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.
RefSeq:	NM_002945.2 , NP_002936.1
RefSeq Size:	4345 bp
RefSeq ORF:	1851 bp
Locus ID:	6117
UniProt ID:	P27694
Cytogenetics:	17p13.3
Domains:	tRNA_anti, Rep-A_N
Protein Families:	Druggable Genome, Stem cell - Pluripotency



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Protein Pathways:	DNA replication, Homologous recombination, Mismatch repair, Nucleotide excision repair
MW:	68.1 kDa
Gene Summary:	<p>This gene encodes the largest subunit of the heterotrimeric Replication Protein A (RPA) complex, which binds to single-stranded DNA (ssDNA), forming a nucleoprotein complex that plays an important role in DNA metabolism, being involved in DNA replication, repair, recombination, telomere maintenance, and co-ordinating the cellular response to DNA damage through activation of the ataxia telangiectasia and Rad3-related protein (ATR) kinase. The nucleoprotein complex protects the single-stranded DNA from nucleases, prevents formation of secondary structures that would interfere with repair, and co-ordinates the recruitment and departure of different genome maintenance factors. This subunit contains four oligonucleotide/oligosaccharide-binding (OB) domains, though the majority of ssDNA binding occurs in two of these domains. The heterotrimeric complex has two different modes of ssDNA binding, a low-affinity and high-affinity mode, determined by which ssDNA binding domains are utilized. The different binding modes differ in the length of DNA bound and in the proteins with which it interacts, thereby playing a role in regulating different genomic maintenance pathways. [provided by RefSeq, Sep 2017]</p>