

Product datasheet for **SC324660**

RPA70 (RPA1) (NM_002945) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RPA70 (RPA1) (NM_002945) Human Untagged Clone
Tag:	Tag Free
Symbol:	RPA70
Synonyms:	HSSB; MST075; REPA1; RF-A; RP-A; RPA70
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

>OriGene sequence for NM_002945.2
 GGAGCTGTTGCGGGTCCGCGGGGAAGTCTTGGCGGTGGAGCCATGGTCCGGCCAACTGAG
 CGAGGGGGCCATTGCGGCCATCATGCAGAAGGGGGATACAAACATAAAGCCCATCCTCCA
 AGTCATCAACATCCGTCCCATTACTACGGGGAATAGTCCGCCGCTTATCGACTGCTCAT
 GAGTGATGGATTGAACACTCTATCCTCTTTCATGTTGGCGACACAGTTGAACCCTCTCGT
 GGAGGAAGAACAATTGTCCAGCAACTGTGTATGCCAGATTACAGATTTATTGTGAACAC
 TCTGAAAGACGGAAGGAGAGTAGTTATCTTGATGGAATTAGAAGTTTTGAAGTCAGCTGA
 AGCAGTTGGAGTGAAGATTGGCAATCCAGTGCCCTATAATGAAGGACTCGGGCAGCCGCA
 AGTAGCTCCTCCAGGCCAGCAGCCAGCCAGCAGCAAGCAGCAGGCCCCAGCCGAGAA
 TGGAAAGCTCGGGAATGGTTTCTACTGTTTCTAAGGCTTATGGTGCTTCAAAGACATTTGG
 AAAAGCTGCAGGTCCCAGCCTGTCACACACTTCTGGGGAAACACAGTCCAAAGTGGTGCC
 CATTGCCAGCCTCACTCCTTACCAGTCCAAGTGGACCATTGTGCTCGTGTACCAACAA
 AAGTCAGATCCGTACCTGGAGCAACTCCCGAGGGGAAGGGAAGCTTTTCTCCCTAGAAGT
 GGTGACGAAAAGTGGTGAATCCGAGCTACAGCTTCAATGAGCAAGTGGACAAGTTCTT
 TCCTCTTATTGAAGTGAACAAGGTGATTTTCTCGAAAGGCACCCTGAAGATTGCTAA
 CAAGCAGTTCACAGCTGTTAAAAATGACTACGAGATGACCTTCAATAACGAGACTTCCGT
 CATGCCCTGTGAGGACGACCATCATTTACCTACGGTTCAGTTTGATTTACGCGGGATTGA
 TGACCTCGAGAACAAGTCGAAAGACTCACTTGTAGACATCATCGGGATCTGCAAGAGCTA
 TGAAGACGCCACTAAAATCACAGTGAGGTCTAACAAACAGAGAAGTTGCCAAGAGGAATAT
 CTACTTGATGGACACATCTGGGAAGGTGGTGACTGCTACACTGTGGGGGAAGATGCTGA
 TAAATTTGATGGTTCTAGACAGCCCGTGTGGCTATCAAAGGAGCCCGAGTCTCTGATTT
 CGGTGGACGGAGCCTCTCCGTGCTGTCTCAAGCACTATCATTGCGAATCCTGACATCCC
 AGAGCCCTATAAGCTTCGTGGATTGGTTTGACGCGAGAAGGACAAGCCTTAGATGGTGTTC
 CATCTCTGATCTAAAGAGCGGGGAGTCCGAGGGAGTAACACCAACTGGAAAACCTTGTA
 TGAGGTCAAATCCGAGAACCTGGGCCAAGGCGACAAGCCGACTACTTTAGTTCTGTGGC
 CACAGTGGTGTATCTTCGCAAAGAGAACTGCATGTACCAAGCCTGCCCGACTCAGGACTG
 CAATAAGAAAAGTATTGATCAACAGAAATGGATTGTACCGTGTGAGAAAGTGCACACCGA
 ATTTCCCAATTTCAAGTACCGCATGATCCTGTCAGTAAATATTGCAGATTTTCAAGAGAA
 TCAGTGGGTGACTTGTTCAGGAGTCTGCTGAAGCTATCCTTGGACAAAATGCTGCTTA
 TCTTGGGGAATTTAAAGACAAGAATGAACAGGCATTTGAAGAAGTTTTCCAGAATGCCAA
 CTTCCGATCTTTCATATTCAGAGTCAGGGTCAAAGTGGAGACCTACAACGACGAGTCTCG
 AATTAAGGCCACTGTGATGGACGTGAAGCCCGTGGACTACAGAGAGTATGGCCGAAGGCT
 GGTGATGAGCATCAGGAGAAGTGCATTGATGTGAGAGGAGCAGTGCCAATCGGGCAGAAG
 TTTGCAAATAGGCAGAATGGAATCGATTTCTCCACCTCCGTGTGACGATCCCATGTTA
 GCTACACAGTGCAGAGGCTCTTGATGGTGGACTAAGCAATTTCTCCCTTGTGCGCATCT
 CAGAACCATCGGTAGGCAAAGGAAAATACGCTCAGGTGGTGTGGTGTAGACTGTGTCA
 GGCCTACGGAGTCAGCCAGTGGCTAGCGCAAGACCAGTCACTCCCTCTGCCTTCAAGGCTT
 CTGTCAATTTTATTATCATCAAGCAGGAATTATGTCGTAAGTCACTGACCCTAAGTGCAG
 ACCATGAAGTAAATTATGTAAGTGGTTTTGCTTCTCCAGTGGTGACCACCCCCCC
 ATCCCCGCTCACAACTTGGGTTCTTCTCAGCGGGCGAGCTGAGAAGCGGTGATGAGCAC
 CTGGGGATTTTAGTAAGTGTGTCTTCTAGAAATCGAAGGCTCTCTTTCTAGAGGTGC
 TACATAGTTGTAATGCTTGGAAATGGCAATAGGGTAGAATGATTAATCAAAGGCATATCT
 TCTATATCTGAAGAGTATCCTTCTCAGGGTTAATAGACTGAGTCAAGTGGTCTGAT
 ATTAATCAAAATGTCTCTTCTGAGGACCGCTGATAAGCATTGACTTGTGCTCCCTAAG
 GAAATCCGAGCGGCTACAAAGCCTTTTACTTTTCACTTCAATTAATGCTGCGCTTCG
 CTTGGTGAAGTACTTTTTTACCTGTACACATTCCTGCATTGATTTTGTGTTTT
 TTTGACTAAAGCTATGTTACATGGAAGGATTTTGAAGCCTTTTGTTCCTTGTCTTGT
 TTTAATAAACAGTATATCTTTGTTGTGAATCCTAAAAAAAAAAAAAAAAAAAAAAAAA
 AAAA

Restriction Sites:

Please inquire

ACCN:	NM_002945
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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 style="list-style-type: none"> 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.
RefSeq:	<u>NM_002945.2</u> , <u>NP_002936.1</u>
RefSeq Size:	2824 bp
RefSeq ORF:	1851 bp
Locus ID:	6117
UniProt ID:	<u>P27694</u>
Cytogenetics:	17p13.3
Domains:	tRNA_anti, Rep-A_N
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	DNA replication, Homologous recombination, Mismatch repair, Nucleotide excision repair

Gene Summary:

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]