

## Product datasheet for TP302066

### RPA70 (RPA1) (NM\_002945) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human replication protein A1, 70kDa (RPA1)
Species:	Human
Expression Host:	HEK293T
Tag:	C-Myc/DDK
Predicted MW:	68 kDa
Concentration:	>50 ug/mL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<a href="#">NP_002936</a>
Locus ID:	6117
RefSeq Size:	4345
Cytogenetics:	17p13.3
RefSeq ORF:	1848
Synonyms:	HSSB; MST075; REPA1; RF-A; RP-A; RPA70



[View online »](#)

**Summary:**

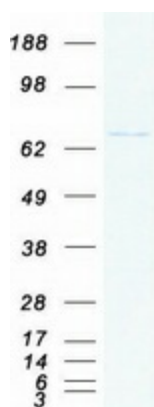
This gene encodes the largest subunit of the heterotrimeric Replication Protein A (RPA) complex, which binds to single-stranded DNA (ssDNA), forming a nucleoprotein complex that plays an important role in DNA metabolism, being involved in DNA replication, repair, recombination, telomere maintenance, 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]

**Protein Families:**

Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:**

DNA replication, Homologous recombination, Mismatch repair, Nucleotide excision repair

**Product images:**

Coomassie blue staining of purified RPA1 protein (Cat# TP302066). The protein was produced from HEK293T cells transfected with RPA1 cDNA clone (Cat# [RC202066]) using MegaTran 2.0 (Cat# [TT210002]).