

## Product datasheet for **TP305715M**

### **RPA34 (RPA2) (NM\_002946) Human Recombinant Protein**

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human replication protein A2, 32kDa (RPA2), 100 µg

**Species:** Human

**Expression Host:** HEK293T

**Expression cDNA Clone  
or AA Sequence:** >RC205715 protein sequence  
**Red**=Cloning site **Green**=Tags(s)

MWNSGFESYGSSSYGGAGGYTQSPGGFGSPAPSQAEEKSRARAQHIVPCTISQLLSATLVDEVFRIGNVE  
ISQVTIVGIIRHAEKAPTNIYKIDDMTAAPMDVRQWVDTDDTSSSENTVPPETVVKVAGHLRSFQNKKS  
LVAFKIMPLEDMNEFTTHILEVINAHMVLKANSQPSAGRAPISNPGMSEAGNFGGNSFMPANGLTVAQN  
QVLNLIKACPRPEGLNFQDLKNQLKHMSVSSIKQAVDFLSNEGHIYSTVDDDDHFKSTDAE

**SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Tag:** C-Myc/DDK

**Predicted MW:** 29.1 kDa

**Concentration:** >0.05 µg/µL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**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:** [NP\\_002937](#)

**Locus ID:** 6118

**UniProt ID:** [P15927](#)



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RefSeq Size: 1819

Cytogenetics: 1p35.3

RefSeq ORF: 810

Synonyms: REPA2; RP-A p32; RP-A p34; RPA32

**Summary:** This gene encodes a 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 RPA complex protects 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. The heterotrimeric complex has two different modes of ssDNA binding, a low-affinity and high-affinity mode, determined by which oligonucleotide/oligosaccharide-binding (OB) domains of the complex are utilized, and differing in the length of DNA bound. This subunit contains a single OB domain that participates in high-affinity DNA binding and also contains a winged helix domain at its carboxy terminus, which interacts with many genome maintenance protein. Post-translational modifications of the RPA complex also plays a role in co-ordinating different damage response 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 RPA2 protein (Cat# [TP305715]). The protein was produced from HEK293T cells transfected with RPA2 cDNA clone (Cat# [RC205715]) using MegaTran 2.0 (Cat# [TT210002]).