

# Recombinant Full Length Human RPA2 Protein, C-Flag-tagged

**Cat. No.** RPA2-1430HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product Overview</b> | Recombinant Full Length Human RPA2 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | <p>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 proteins. Post-translational modifications of the RPA complex also play a role in co-ordinating different damage response pathways.</p> |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|                         |                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b>   | 29.1 kDa                                                                                                                                                                                                                                                                                                                                                             |
| <b>AA Sequence</b>      | <p>MWNSGFESYGSSSYGGAGGYTQSPGGFGSPAPSQAEKKSRARAQHIVPCTISQLL</p> <p>SATLVDEVFRIGNVE ISQVTIVGIIRHAEKAPTNIIVYKIDDMTAAPMDVRQWVDTDDT</p> <p>SSENTVVPPEYVKVAGHLRSFQNKKS LVAFKIMPLEDMNEFTTHILEVINAHMVLS</p> <p>KANSQPSAGRAPISNPGMSEAGNFGGNSFMPANGLTVAQN</p> <p>QVLNLIKACPRPEGLNFQDLKNQLKHMSVSSIKQAVDFLSNEGHIYSTVDDDDHFKST</p> <p>DAESGPTRRTRPLEQKLISEEDLAANDILDYKDDDDDKV</p> |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                                                                                                                                                                                                                                         |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                        |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                                                                                                                                                                                                                                             |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                                                                                                                                                                                                                                                    |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                                                                                                                                                                                                                                     |
| <b>Protein Families</b> | Druggable Genome, Stem cell - Pluripotency                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Pathways</b> | DNA replication, Homologous recombination, Mismatch repair, Nucleotide excision repair                                                                                                                                                                                                                                                                               |
| <b>Full Length</b>      | Full L.                                                                                                                                                                                                                                                                                                                                                              |

## GENE INFORMATION

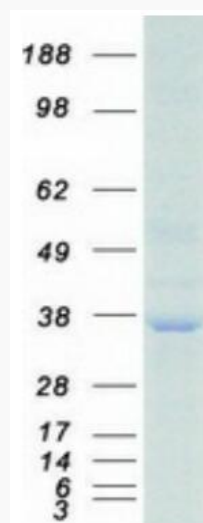
|                  |                                                      |
|------------------|------------------------------------------------------|
| <b>Gene Name</b> | RPA2 replication protein A2 [ Homo sapiens (human) ] |
|------------------|------------------------------------------------------|

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|------------------------|----------------------------------|
| <b>Official Symbol</b> | RPA2                             |
| <b>Synonyms</b>        | REPA2; RPA32; RP-A p32; RP-A p34 |
| <b>Gene ID</b>         | 6118                             |
| <b>mRNA Refseq</b>     | NM_002946.5                      |
| <b>Protein Refseq</b>  | NP_002937.1                      |
| <b>MIM</b>             | 179836                           |
| <b>UniProt ID</b>      | P15927                           |



Coomassie blue staining of purified RPA2 protein.