

### ORDERING INFORMATION

**Catalog Number:** AF5937

**Lot Number:** CDNI01

**Size:** 100 µg

**Formulation:** 0.2 µm filtered solution in PBS with 5% trehalose

**Storage:** -20° C

**Reconstitution:** sterile PBS

**Specificity:** human RPA2

**Immunogen:** *E. coli*-derived rhRPA2 (aa 141 - 270)

**Ig Type:** goat IgG

**Applications:** Western blot  
Direct ELISA

### Background

RPA2 (replication protein A 32 kDa subunit; also RFA2 and RPA p34) is a 32 kDa DNA-binding protein that constitutes one of three subunits comprising the PRA heterotrimer complex. In conjunction with 70 kDa RPA1 and 14 kDa RPA3, RPA2 participates in DNA replication, recombination and repair. Human RPA2 is 270 amino acids (aa) in length. It contains a Gly/Ser-rich N-terminus (aa 1 - 33), a DNA-binding domain (aa 43 - 171) and a protein-interaction C-terminus (aa 187 - 270). Phosphorylation of the N-terminus on Ser4/8/23/29/33, plus Thr21, regulates RPA complex interactions with DNA repair and replication complexes. There are multiple splice variants. Three contain N-terminal extensions: one shows an 88 aa insertion after Ser4, another shows a 12 aa substitution for aa 1 - 4, and a third shows a four aa insertion after Ser4. There is also a deletion of aa 93 - 98, and a potential truncation after Gln175. Over aa 141 - 270, human RPA2 shares 83% aa identity with mouse RPA2.

### Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant human RPA2 (rhRPA2; aa 141 - 270; Accession # P15927). Human RPA2 specific IgG was purified by human RPA2 affinity chromatography.

### Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

### Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

### Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a **manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

### Specificity

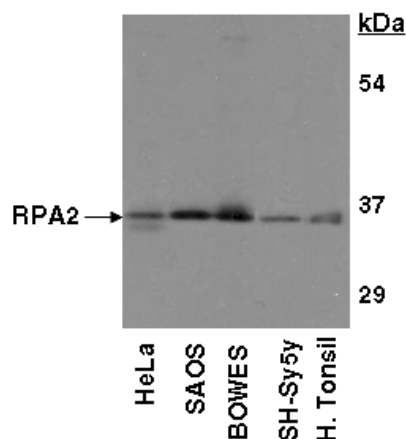
This antibody has been selected for its ability to recognize human RPA2 in direct ELISAs and Western blots.

### Applications

**Western blot** - An antibody concentration of 1.0 µg/mL is recommended.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human RPA2. The detection limit for rhRPA2 is approximately 0.3 ng/well.

**Optimal dilutions should be determined by each laboratory for each application.**



### Detection of RPA2 with AF5937.

Cell and tissue lysates were resolved by SDS-PAGE, transferred to an Immobilon-P membrane and immunoblotted with 1.0 µg/mL goat anti-hRPA2.