

product **AS07 214**

RFA | Baker's yeast replication factor A

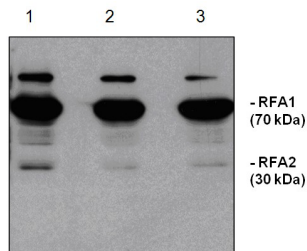
product information

background	<i>Saccharomyces cerevisiae</i> replication protein A (RPA), also known as replication factor A (RFA) is a single-stranded DNA-binding protein that is required for multiple processes in eukaryotic DNA metabolism. Those processes include DNA replication, DNA repair, and recombination. Homologues to RPA have been identified in all eukaryotic organisms examined. RPA is heterotrimeric protein composed of subunits of approximately 70, 30, and 14 kDa. Members of this family bind nonspecifically to single-stranded DNA and interact with and/or modify the activities of multiple proteins. Alternative names: Replication protein A 69 kDa DNA-binding subunit, Single-stranded DNA-binding protein, DNA-binding protein BUF2, replication protein A 36 kDa subunit, DNA-binding protein BUF1 antibody
immunogen	RPA from <i>Saccharomyces cerevisiae</i> consisting of three subunits RFA1 (70 kDa), RFA2 (30 kDa) and RFA3 (14 kDa); overexpressed in <i>E.coli</i> and purified by chromatography; no affinity tags were added to any of three subunits
antibody format	rabbit; polyclonal; serum; lyophilized
quantity	50 µl - for reconstitution add 50 µl of sterile water
storage	store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
tested applications	Western blot (WB), Immunoprecipitation (IP), Chromatin Immunoprecipitation (ChIP)
related products	to be added when available
additional information	to be added when available

application information

recommended dilution	1: 20 000 with standard ECL (WB), chromatin immunoprecipitation
expected apparent MW	70 + 30 + 14 kDa
confirmed reactivity	<i>Saccharomyces cerevisiae</i>
predicted reactivity	<i>Saccharomyces cerevisiae</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	Antibody was also successfully used in ChIP application; presented data are courtesy of M. Pool and Dr. H. van Attikum. Load of 1 ng of the protein will allow to visualize two subunits of RPA, while load of 5 ng will allow to visualize all three subunits.
selected references	Yeeles et al. (2015). Regulated eukaryotic DNA replication origin firing with purified proteins. <i>Nature</i>. 2015 Mar 4. doi: 10.1038/nature14285. Holstein et al. (2014). Interplay between Nonsense-Mediated mRNA Decay and DNA Damage Response Pathways Reveals that Stn1 and Ten1 Are the Key CST Telomere-Cap Components. <i>Cell Rep</i>. 2014 May 22;7(4):1259-69. doi: 10.1016/j.celrep.2014.04.017. Epub 2014 May 15. Deng et al. (2014). RPA antagonizes microhomology-mediated repair of DNA double-strand breaks. <i>Nat Struct Mol Biol</i>. 2014 Mar 9. doi: 10.1038/nsmb.2786.

application example



TCA precipitated protein extracts from a wild type yeast strain (*S. cerevisiae*) were separated on 10% gel and transferred to a PVDF membrane. Antibody was used in different dilutions: 1: 5000 (1); 1: 10 000 (2); 1: 20 000 (3);

Besides the bands for RFA1 and RFA2 an unspecific band was detected at ~150 kDa.