Recombinant RFA4 protein (His tag)

Catalog Number	547255
Synonyms	RP-A p30; Replication factor A protein 4; RF-A protein 4
Species	Human
Expression System	E. coli
Accession	Q13156
Molecular Weight	Predictes a molecular mass of 26.01 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	45-261
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 45-261 aa (Q13156) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Introducing the recombinant human Replication protein A 30 kDa subunit (RP-A p30) fragment (amino acids 45-261), a stable and soluble protein unit ideal for DNA repair studies, structural biology, and biochemical assays. This fragment, derived from the RPA4 gene, retains functional relevance for investigating alternative replication protein A complex mechanisms. The full-length Replication protein A 30 kDa subunit, encoded by the RPA4 gene, functions as part of the alternative replication protein A complex (aRPA) by binding single-stranded DNA, primarily contributing to DNA repair processes. Unlike the canonical RPA complex containing RPA2, aRPA may not support chromosomal DNA replication or S-phase progression but facilitates DNA repair activities, including nucleotide excision repair and RAD51-dependent strand exchange, while potentially aiding DNA polymerase delta synthesis with PCNA and RFC. Localized to the nucleus, it accumulates at DNA repair foci following DNA damage, underscoring its role in maintaining genomic integrity.