Recombinant Single-stranded DNA Binding Protein (rSSB)

PrimeGene Technical Data Sheet

Catalog Number:	6Z1-01
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 16.1 kDa, a single non-glycosylated polypeptide chain containing 148 amino acids.
Quantity:	100μg/500μg/1000μg
AA Sequence:	MEEKVGNLKP NMESVNVTVR VLEASEARQI QTKNGVRTIS EAIVGDETGR VKLTLWGKHA GSIKEGQVVK IENAWTTAFK GQVQLNAGSK TKIAEASEDG FPESSQIPEN TPTAPQQMRG GGRGFRGGGR RYGRRGGRRQ ENEEGEEE
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Data Not Available.
Physical Appearance:	Sterile liquid.
Formulation:	0.2 μm filtered concentrated solution in 20 mM Tris, pH 7.4, 200 mM NaCl, 50 % Glycerol, 1 mM EDTA, 0.5 mM DTT.
Endotoxin:	Less than 0.1 EU/μg of rSSB as determined by LAL method.
Stability & Storage:	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 6 months from date of receipt, -20 to -70 °C as supplied. ● 3 months, -20 to -70 °C under sterile conditions after opening.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

Single-stranded DNA Binding Protein

Single-stranded DNA-binding protein, or SSB, binds to single-stranded regions of DNA to prevent premature annealing, to protect the single-stranded DNA from being digested by nucleases, and to remove secondary structure from the DNA to allow other enzymes to function effectively upon it. In molecular biology, SSB protein domain in bacteria are important in its function of maintaining DNA metabolism, more specifically DNA replication, repair and recombination. SSB proteins have been identified in organisms from viruses to humans. The only organisms known to lack them are thermoproteales, a group of extremophile archaea, where they have been displaced by the protein ThermoDBP. While many phage and viral SSBs function as monomers and eukaryotes encode heterotrimeric RPA (Replication Protein A), the best characterized SSB is that from the bacteria E. coli which, like most bacterial SSBs exists as a tetramer.

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