E.coli Single-stranded DNA Binding Protein (SSB)

02-042 200 µg, 02-042-5 1 mg

Storage: -20℃

Applications:

1. Functional single-stranded DNA-binding protein for studying DNA replication and recombination
2. Enhancement of the specificity and yield of PCR

Background: ***E.coli* single-stranded DNA binding protein (SSB)** binds to single-stranded DNA with high specificity (1, 2). It is involved in DNA replication and recombination *in vivo*. The **SSB** gene was expressed as the recombinant protein in *E.coli* highly purified. The molecular mass is 18.9 kDa.

Form: 2 mg/ml in 20 mM Tris-HCl (pH 7.6), 200 mM NaCl, 1 mM dithiothreitol, 1mM EDTA, 50% glycerol

Purity: Greater than 95% purity as determined by SDS-PAGE (CBB staining)
The absence of endonucleases and exonucleases was confirmed.

Data Link: UniProtKB/Swiss-Prot P0AGE0 (SSB_ECOLI)

References:

1. Krauss G *et al* (1981) "Escherichia coli single-strand deoxyribonucleic acid binding protein: Stability, specificity, and kinetics of complexes with oligonucleotides and deoxyribonucleic acid." *Biochemistry* **20**: 5346-5352 PMID: 7028102
2. Weiner JH *et al* (1975) "The deoxyribonucleic acid unwinding protein of Escherichia coli. Properties and functions in replication." *J.Biol.Chem.* **250**:1972-1980 PMID: 1090613

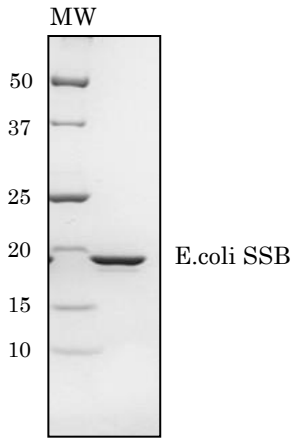
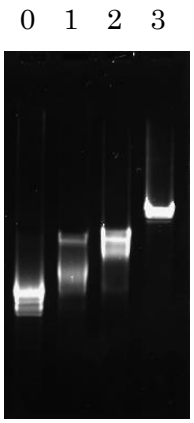


Fig.1 SDS-PAGE of *E.coli* SSB protein



0.02 ug/ul of M13mp18ssDNA was incubated with 0 (lane 0), 0.025 (lane 1), 0.05 (lane 2), and 0.1(lane 3) ug/ul of SSB at 37℃ for 30 min. and then 10ul aliquot was subjected to electrophoresis in agarose.

Fig.2 Binding activity to single-stranded DNA

Related product: #02-040 T4 SSB protein, #02-044 Taq SSB

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