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Catalog No. BAM-02-042-5-EX

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

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.

Applications: 1) Functional single-stranded DNA-binding protein for studying DNA replication and

recombination

2) Enhancement of the specificity and yield of PCR

Size: 1 mg (5 x 200 μg)

Form: 5 mg/ml in 20mM Tris-HCl (pH 7.6), 200mM NaCl, 1mM dithiothreitol, 1mM EDTA, 50%

glycerol

Quality: Greater than 95% purity as determined by SDS-PAGE (CBB staining)

The absence of endonucleases and exonucleases was confirmed.

Data Link: Swiss-Prot <u>P0AGE0</u>

Storage: -20°C

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, J.H. et al. (1975) "The deoxyribonucleic acid unwinding protein of Escherichia coli. Properties and

functions in replication." J.Biol.Chem. 250:1972-1980 PMID: 1090613



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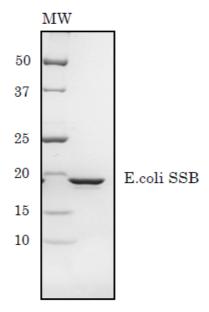


Fig.1 SDS-PAGE of E.coli SSB protein

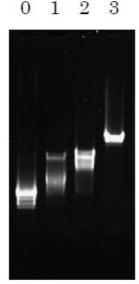


Fig.2 Binding activity to single-stranded DNA 0.02 ug/ul of M13mp18ssDNA was incubated with 0 (lane0), 0.025 (lane1), 0.05 (lane2), and 0.1 (lane3) ug/ul of SSB at 37°C for 30 min. and then 10ul aliquot was subjected to electrophoresis in agarose.

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TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN URL: http://www.cosmobio.co.jp e-mail: export@cosmobio.co.jp

[国内連絡先] Phone: +81-3-5632-9610

FAX: +81-3-5632-9618 FAX: +81-3-5632-9619