

T4 Gene 32 Protein (Single-stranded DNA Binding Protein, SSB)

02-040 200 µg, 02-040-5 1 mg

T4 gene 32 protein is a single-stranded DNA binding protein from phage T4 which binds to single-stranded DNA with high specificity (1, 2). It is involved in DNA replication and recombination. The T4 phage-derived **SSB** gene was expressed in *E.coli* and the protein was highly purified. MW is 33.5 kDa.

Applications:

1. Promoting DNA replication and recombination by stabilizing single-stranded DNA (1)
2. Increase specificity and yields of long PCR products (3)

Quality Assurance: Greater than 95% of protein determined by SDS-PAGE (CBB staining)

The absence of endonucleases and exonucleases was confirmed.

Form: 10 mg/ml in 20mM Tris-HCl (pH 8.0), 100mM NaCl, 0.5mM dithiothreitol, 1mM EDTA, 50% glycerol

Storage: -20°C

Data Link: UniProtKB/Swiss-Prot [P03695](#) (VHED_BPT4)

References:

1. Alberts BM & Frey L (1970) "T4 bacteriophage gene 32: a structural protein in the replication and recombination of DNA". *Nature* **227**:1313-1318 PMID:[5455134](#)
2. Bittner M *et al* (1979) "Purification of the T4 gene 32 protein free from detectable deoxyribonuclease activities" *J Biol Chem* **254**: 9565-9572 PMID:[226522](#)
3. Schwarz K *et al* (1990) "Improved yields of long PCR products using gene 32 protein" *Nucleic Acids Res* **18**:1079 PMID:[2107527](#)

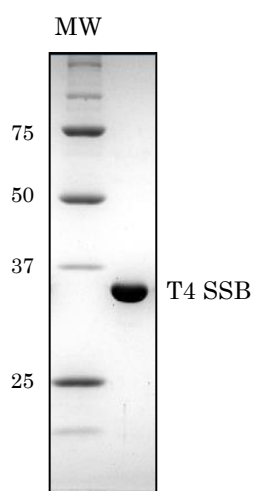
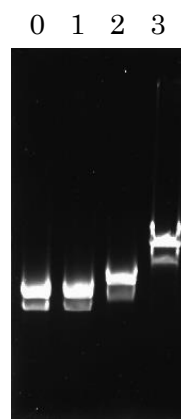


Fig.1 SDS-PAGE of T4 SSB protein



0.02 µg/ul of M13mp18ssDNA was incubated with 0(lane0), 0.025(lane1), 0.05(lane2), and 0.1(lane3) µg/ul of SSB at 37°C for 30 min and then 10 µl aliquot was subjected to electrophoresis in agarose.

Fig.2 Binding activity to single-stranded DNA

Related product: [#02-042](#) E.coli SSB protein, [#02-044](#) Taq SSB