

## 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

**Data Link:** Swiss-Prot [P03695](#)

### 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](#)

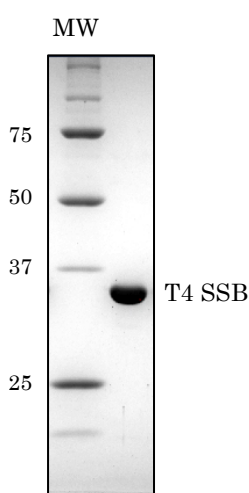
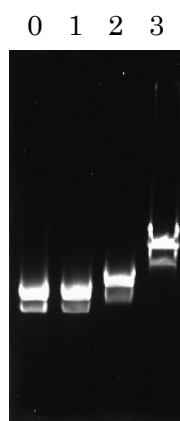


Fig.1 SDS-PAGE of T4 SSB protein



0.02 µg/µl of M13mp18ssDNA was incubated with 0(lane0), 0.025(lane1), 0.05(lane2), and 0.1(lane3) µg/µl of SSB at 37 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