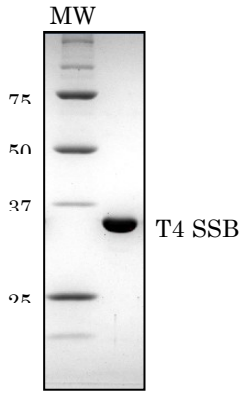
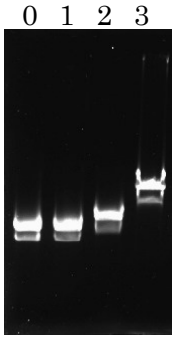
T4 Gene 32 Protein (Single-stranded DNA Binding Protein, SSB protein)

Product code	02-040　　02-040-5
Size	200 µg　　1mg
Storage	-20℃
Product Description	The T4 phage-derived **SSB** gene was expressed in *E.coli* and the protein was highly purified. MW is 33.5 kDa.
Concentration	1.0 mg/ml
Buffer	20mM Tris-HCl (pH 8.0), 100mM NaCl, 0.5mM dithiothreitol, 1mM EDTA, 50% glycerol
Purity	Greater than 95% of protein determined by SDS-PAGE (CBB staining) The absence of endonucleases and exonucleases was confirmed.
Application	1. Promoting DNA replication and recombination by stabilizing single-stranded DNA (1) 2. Increase specificity and yields of long PCR products (3)
Background	**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.
Data Image	 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) ug/ul 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
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
Related product	02-042 *E.coli* SSB protein　　02-044 *Taq* SSB protein

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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