Datasheet for ABIN2452207

# T4 SSB (Active) Protein

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## Overview

| | |
|---|---|
| Quantity: | 200 µg |
| Target: | T4 SSB |
| Origin: | Bacteriophage T4 |
| Source: | Escherichia coli (E. coli) |
| Protein Type: | Recombinant |
| Biological Activity: | Active |
| Application: | Functional Studies (Func) |

## Product Details

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|---|---|
| Characteristics: | The absence of endonucleases and exonucleases was confirmed. |
| Purity: | > 95 % of protein determined by SDS-PAGE (CBB staining) |

## Target Details

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|---|---|
| Target: | T4 SSB |
| Target Type: | Phage Protein |
| Background: | T4 gene 32 protein is a single-stranded DNA binding protein from phage T4 which binds to single-stranded DNA with high specificity. 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. |
| UniProt: | P03695 |

## Application Details

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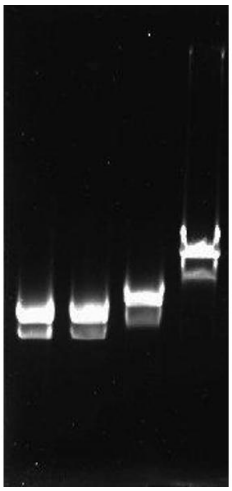
|---|---|
| Application Notes: | 1. Promoting DNA replication and recombination by stabilizing single-stranded DNA<br>2. Increase specificity and yields of long PCR products |
| Restrictions: | For Research Use only |

## Handling

| | |
|---|---|
| Format: | Liquid |
| Concentration: | 10 mg/mL |
| Buffer: | 20 mM Tris-HCl ( pH 8.0), 100 mM NaCl, 0.5 mM dithiothreitol, 1 mM EDTA, 50 % glycerol |
| Preservative: | Dithiothreitol (DTT) |
| Precaution of Use: | This product contains Dithiothreitol (DTT): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | -20 °C |

## Publications

| | |
|---|---|
| Product cited in: | Bittner, Burke, Alberts: "Purification of the T4 gene 32 protein free from detectable deoxyribonuclease activities." in: **The Journal of biological chemistry**, Vol. 254, Issue 19, pp. 9565-72, (1979) (PubMed).<br><br>Alberts, Frey: "T4 bacteriophage gene 32: a structural protein in the replication and recombination of DNA." in: **Nature**, Vol. 227, Issue 5265, pp. 1313-8, (1970) (PubMed). |



## Polymerase Chain Reaction

**Image 1.**

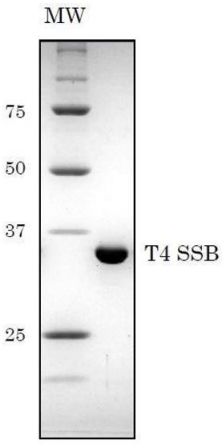
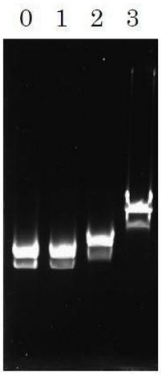



Fig.1 SDS-PAGE of T4 SSB protein

## Western Blotting

**Image 2.**




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℃ for 30 min and then 10 ul aliquot was subjected to electrophoresis in agarose.

Fig.2 Binding activity to single-stranded DNA

## Polymerase Chain Reaction

**Image 3.**