

## ***Thermus aquaticus* Single-stranded DNA Binding Protein (SSB)**

02-044

100ug

***Thermus aquaticus* derived single-stranded DNA binding protein (SSB)** is a thermostable protein which binds to single-stranded DNA with high specificity but does not bind well to double-stranded DNA (1). It plays important roles in DNA replication and recombination (2). ***Thermus aquaticus* SSB** gene was expressed in *E. Coli* in large quantities and the protein was highly purified. MW is 30.0 kDa, same as that of the natural protein.

### **Applications:**

Stabilizes single-stranded DNA in DNA replication, repair, and recombination

### **Storage conditions:**

50mM Tris-HCl (pH 8.0), 200mM NaCl, 0.1mM dithiothreitol, 0.5mM EDTA, 50% glycerol

Store at -20°C

### **Activity:**

Single-stranded DNA binding activity was confirmed (Fig.2).

### **Concentration:**

1.0 mg/ml

### **Quality Assurance:**

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

The absence of endonucleases and exonucleases was confirmed.

**Data Link:** UniProtKB/Swiss-Prot [Q9KH06](#) (SSB\_THEAQ)

### **References:**

1. Dabrowski S *et al* (2002) "Novel thermostable ssDNA-binding proteins from *Thermus thermophilus* and *T. aquaticus*-expression and purification." *Protein Expr Purif.* **26**: 131-138 PMID: [12356480](#)
2. Greipel J *et al* (1989) In Saenger,W. and Heinemann,U.(eds), Protein-Nucleic Acid Interaction, Macmillan, London, pp.61-86

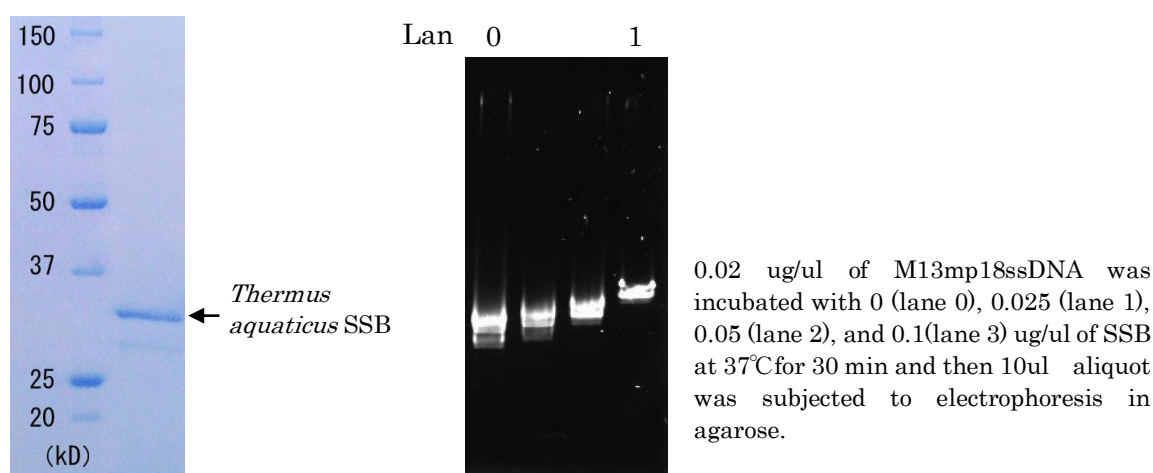


Fig1.SDS-PAGE of *Thermus aquaticus* SSB binding to single-stranded DNA

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