



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

BACKGROUND

***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
Size:	100 µg
Concentration:	0.5 mg/ml
Form:	50mM Tris-HCl (pH 8.0), 200mM NaCl, 0.1mM dithiothreitol, 0.5mM EDTA, 50% glycerol
Activity:	Single-stranded DNA binding activity was confirmed (Fig.2).
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)
Storage:	Store at -20°C
References:	1) Dabrowski S <i>et al</i> (2002) "Novel thermostable ssDNA-binding proteins from <i>Thermus thermophilus</i> and <i>T. aquaticus</i> -expression and purification." <i>Protein Expr Purif.</i> 26 : 131-138 PMID: 12356480 2) Greipel J <i>et al</i> (1989) In Saenger,W. and Heinemann,U.(eds), Protein-Nucleic Acid Interaction, Macmillan, London, pp.61-86

Related Products

BAM-02-040-EX	T4 SSB protein
BAM-02-042-EX	E.coli SSB protein

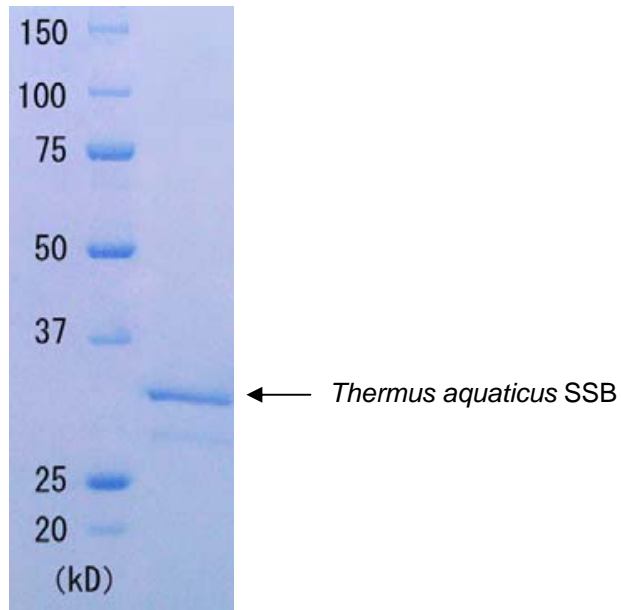
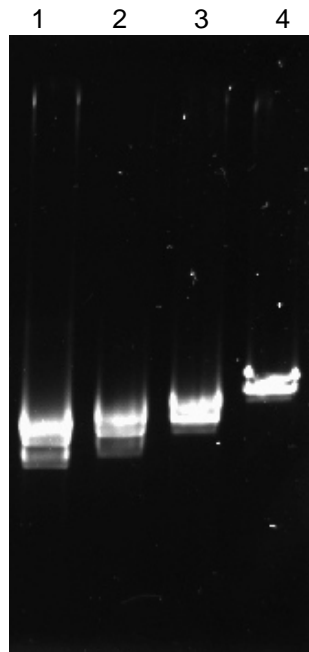


Fig1. SDS-PAGE of *Thermus aquaticus* SSB



0.02 ug/ul of M13mp18ssDNA was incubated with 0 (lane 0), 0.025 (lane 1), 0.05 (lane 2), and 0.1 (lane 3) ug/ul of SSB at 37°C for 30 min and then 10ul aliquot was subjected to electrophoresis in agarose.

Fig.2 Binding activity to single-stranded DNA

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