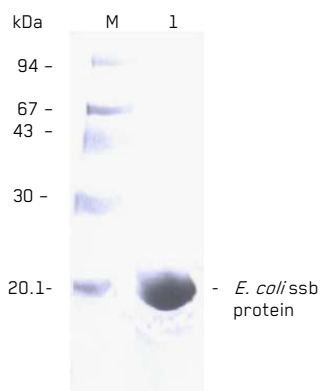


# Single-stranded DNA Binding Protein (*Escherichia coli*)

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Cat. No.	Package Size
E4200-01	100 µg
E4200-02	500 µg

**Storage Conditions:** Store at -20°C



SDS/PAGE of purified *Escherichia coli* ssb protein.

**Lane M:** molecular size marker.

**Lane 1:** purified *Escherichia coli* ssb Protein.

## Single-stranded specific DNA binding protein from *Escherichia coli*.

### Description:

- *E. coli* Single-Strand DNA Binding Protein (SSB) binds single-stranded DNA with high specificity (1).
- *In vivo*, the protein is involved in DNA replication, recombination, and repair. *In vitro*, *E. coli* SSB enhances several molecular biology applications by destabilizing DNA secondary structure (helix destabilization) (1) and increasing the processivity of polymerases (6).
- Reduces formation of secondary DNA structures.
- Prevents degradation of ssDNA by nucleases.
- Ultrapure recombinant protein.
- Prevents inhibition of PCR by template DNA contaminants (2).
- Improves the efficiency, specificity and yield of DNA amplification by *Taq* DNA Polymerase (3,4,5,6).
- Improves the specificity and selectivity of multiplex PCR (7).
- Aids PCR of difficult and GC-rich templates.
- Stabilizes single-stranded regions of DNA for site-specific mutagenesis.
- Aids completion of restriction enzyme digestion.
- **Working range in PCR reactions: Use 0.01 - 0.16 µg of *E. coli* ssb in a 50 µl reaction volume.**

### Storage Buffer:

20 mM Tris-HCl (pH 8.0 at 22°C), 500 mM NaCl, 1 mM dithiothreitol, 0.2 mM EDTA and 50% (v/v) glycerol.

### Quality Control:

All preparations are assayed for contaminating endonuclease, 3'- and 5'-exonuclease activities. Typical preparations are greater than 95% pure, as judged by SDS polyacrylamide gel electrophoresis.

### References:

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