Single-Stranded DNA Binding Protein (SSB)

Cat. No. SSB02200
1. Introduction
Single-Stranded DNA Binding Protein (SSB) binds single-stranded DNA with high specificity\(^1\). \textit{In vivo}, the protein is involved in DNA replication, recombination, and repair. \textit{In vitro}, SSB enhances several molecular biology applications by destabilizing DNA secondary structure and increasing the processivity of polymerases.

Applications
- Improve restriction endonuclease digests and restriction endonuclease digests in the presence of single-stranded DNA.\(^3\)
- Enhance the specificity and yield of PCR reactions.\(^4\)
- Improve DNA sequencing results through regions with strong secondary structure.\(^5\)
- Site-directed mutagenesis when used in conjunction with \textit{recA} protein.\(^6\)
- Improve the processivity of DNA polymerases.
- DNA replication and recombination studies.

2. Product Specifications
Storage: Store only at –20°C in a freezer without a defrost cycle.

Storage Buffer: SSB is supplied in a 50% glycerol solution containing 50 mM Tris-HCl (pH 7.5), 100 mM NaCl, 0.1 mM EDTA 1.0 mM dithiothreitol, and 0.1% Triton® X-100.

Quality Control: SSB binding activity is tested in a gel retardation assay using single-stranded M13mp18 DNA.

Contaminating Activity Assays: SSB is free of detectable DNA exonuclease, endonuclease, and ribonuclease activities.

3. Kit Contents

<table>
<thead>
<tr>
<th>Desc.</th>
<th>Quantity</th>
</tr>
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<tbody>
<tr>
<td>Single-Stranded DNA Binding Protein:</td>
<td>200 μg</td>
</tr>
<tr>
<td>SSB02200</td>
<td></td>
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</tbody>
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4. Related Products
The following products are also available:
- \textit{recA} Protein

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5. References:

Triton is a registered trademark of Rohm & Haas, Philadelphia, Pennsylvania.

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