

# Gp 32 Protein

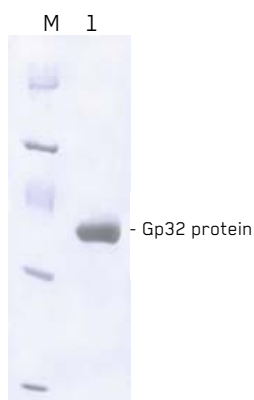
Single-stranded DNA Binding Protein of T4 bacteriophage

## Gp 32 Protein

Single-stranded DNA Binding Protein  
(T4 bacteriophage of *Escherichia coli*)

Cat. No.	Size
E1170-01	100 µg
E1170-02	500 µg

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



SDS/PAGE of purified Gp32 protein of T4 bacteriophage.

**Lane M:** molecular size marker.

**Lane 1:** purified Gp32 Protein.

**Single-stranded specific DNA binding protein produced by T4 bacteriophage infected *Escherichia coli* cells.**

### Description:

- Single-stranded specific DNA binding protein (1).
- Helix destabilizing protein (1).
- 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 of DNA amplification by *Taq* Polymerase (3,4,5,6).
- Replaces Hot Start method during assembling PCR reaction (4,7).
- Stabilizes single-stranded regions of DNA for site-specific mutagenesis.
- Aids completion of restriction enzyme digestion.
- Improves the efficiency of DNA synthesis by T4 DNA Polymerase (8).
- Enhances the fidelity of modified T4 Polymerase (8).
- **The recommended concentration in PCR reactions is 10 µg/ml.**

### Storage Buffer:

20 mM Tris-HCl (pH 7.8 at 22°C), 300 mM NaCl, 5 mM β-mercaptoethanol, 0.05% Igepal, 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:

1. Greipel, J. Urbanke, C. and Maass, G. (1989) in: Saenger, W., Heinemann, U. (Eds.) pp. 61-86.
2. Kreader, C.A. (1996) *Applied Environ. Micro.* 62, 1102-1106.
3. Dąbrowski, S., Olszewski, M., Piątek, R. and Kur, J. (2002) *Protein Expr. Purif.* 26, 131-138.
4. Dąbrowski, S. and Kur, J. (1999) *Protein Expr. Purif.* 16, 96-102.
5. Rapley, Mol. Biotech. 2 (1994) 295-298.
6. Schwarz, K., Hansen-Hagge, T. and Bartram, C. (1989) *Nucleic Acids Res.* 18, 1079.
7. Barski, P., Piechowicz, L., Galinski, J. and Kur, J. (1996) *Mol. Cell Probes* 10, 471-475.
8. Sandhu, D.K. and Keohavong, P. (1994) *Gene* 144, 53-58.