E. coli RecA Protein

01-001　200 μg,　　01-002　1 mg

E. coli RecA protein is a very important enzyme for homologous recombination and recombinational repair. It's synthesis is induced by SOS response caused by DNA damage. RecA protein has multiple functions such as single stranded DNA dependent ATPase activity, DNA annealing activity, formation of D-loop and Holliday structure in homologous recombination reaction, and coprotease activities that promote self-cleavages of LexA repressor, lambda phage repressor and UmuD protein. RecA protein binds to single and double stranded DNA for nucleofilament formation. It carries out a central role in homologous recombination. Its homologs in eukaryotes are Rad51 protein and Dmcl protein (1).

The product is over-expressed as a recombinant protein and highly purified by several steps of chromatography. A single band is observed by SDS-PAGE at 38 kD (Fig. 1).

Usage

1) Studies on homologous recombination mechanism and SOS response.
2) Useful in the screening using probe from library by promotion of DNA hybridization (2).
3) Facilitate DNA observation by electron microscope due to nucleofilament formation with DNA.

Specification

Purity: Over 90% by SDS-PAGE (CBB staining)

Form: 1.6 mg/ml in 20 mM Tris-HCl (pH 8.0), 1 mM EDTA, 150 mM KCl, 7 mM mercaptoethanol, 50% glycerol

Storage: -20℃ (long period, −70℃)

Reference

1. Waker GC, Cold Spring Harb. Symp. Quant Biol. 65:1-10 (2000)
2. Taidi-Laskowski B, Nucleic Acids Res. 16:8157-69 (1988)

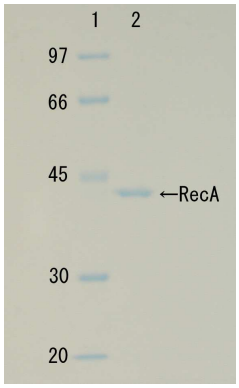

Fig. 1 Polyacrylamide gel electrophoresis of RecA protein.

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