Datasheet for ABIN2452179

RecA (Active) Protein

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Overview

Quantity:	100 µg
Target:	RecA
Origin:	E. coli
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Functional Studies (Func)

Product Details

Characteristics:	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.
Purity:	> 90 % by SDS-PAGE (CBB staining)

Target Details

Target:	RecA
Background:	E. coli RecA protein is a very important enzyme for homologous recombination and recombinational repair. Its 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

Target Details

	recombination. Its homologs in eukaryotes are Rad51 protein and Dmcl protein.
UniProt:	P0A7G6

Application Details

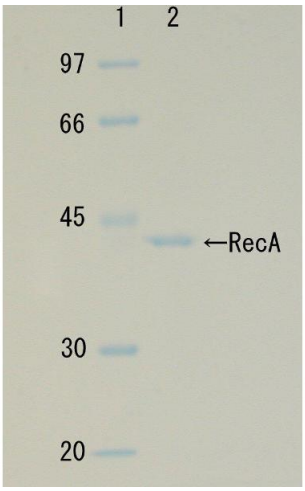
Application Notes:	1) Studies on homologous recombination mechanism and SOS response. 2) Useful in the screening using probe from library by promotion of DNA hybridization (2). 3) Facilitate DNA observation by electron microscope due to nucleofilament formation with DNA.
Restrictions:	For Research Use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

Handling

Format:	Liquid
Concentration:	1.6 mg/mL
Buffer:	20 mM Tris-HCl (pH 8.0), 1 mM EDTA, 150 mM KCl, 1 mM DTT, 50 % glycerol
Preservative:	Dithiothreitol (DTT)
Precaution of Use:	This product contains Dithiothreitol (DTT): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20 C (For long term storage: -70 C)

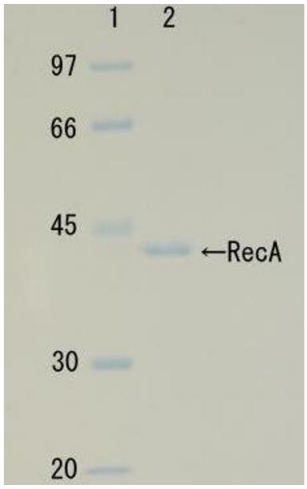
Publications

Product cited in:	Walker: "Understanding the complexity of an organism's responses to DNA damage." in: **Cold Spring Harbor symposia on quantitative biology**, Vol. 65, pp. 1-10, (2003) (PubMed). Taidi-Laskowski, Tyan, Honigberg, Radding, Grumet: "Use of RecA protein to enrich for homologous genes in a genomic library." in: **Nucleic acids research**, Vol. 16, Issue 16, pp. 8157-69, (1988) (PubMed).



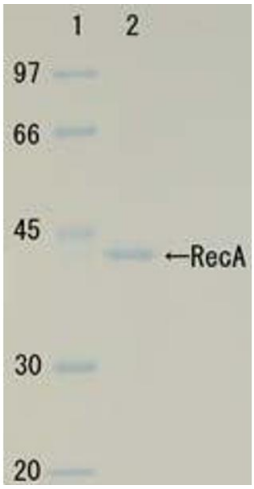
SDS-PAGE

Image 1.



SDS-PAGE

Image 2.



SDS-PAGE

Image 3.