MCLAB
Molecular Cloning Laboratories

User Manual

Version 3.0

Product name: RecA Protein, *E. coli*

Cat #: RPEC-100, RPEC-200, RPEC-OEM, B-RR10

Description:

RecA Protein (*E. coli*) is necessary for genetic recombination, reactions involving DNA repair and UV-induced mutagenesis. RecA promotes the autodigestion of the LexA repressor, UmuD protein and lambda repressor. Cleavage of LexA derepresses more than 20 genes. In vitro studies indicate that in the presence of ATP, RecA promotes the strand exchange of single-strand DNA fragments with homologous duplex DNA. The reaction has three distinct steps: (i) RecA polymerizes on the single-strand DNA, (ii) the nucleoprotein filament binds the duplex DNA and searches for a homologous region, (iii) the strands are exchanged.

Protocol:

A reaction containing 1 µg pUC19, 0.18 µg 60 mer, 0.3 mM ATP γ-S, 4 µg RecA, in 40 µl 1X RecA Reaction. Buffer was incubated at 37°C for 10 minutes to form a stable triple helix.