T4 UvsX Recombinase

Instruction for Use

Cat. No./Spec.: P1141/100 μL

Concentration: 5mg/mL

Product Description

T4 UvsX Recombinase is derived from T4 bacteriophage and is a homologue of the RecA/Rad51 recombinase family with a molecular weight of 59 kDa. The RecA/Rad51 recombinase family plays an important role in the accurate repair of double-stranded DNA breaks and the restart of replication forks. T4 UvsX Recombinase can bind to DNA single strands (primers) to form complexes, which search for homologous sequences in double-stranded DNA and then undergo strand displacement reactions. UvsX works together with other related proteins to complete isothermal amplification reactions.

Components

Component	P1141
T4 UvsX Recombinase (5mg/mL)	100 μL

Storage Condition

Store at -20°C.

Scope of Application

1. isothermal amplification.

Quality Control

Protein purity detection: using SDS-PAGE gel electrophoresis with purity no lower than 95%.

Nuclease activity assay: 5 μg of T4 UvsX Recombinase was incubated with 200 ng of supercoiled plasmid DNA at 37℃ for 4 hours. Agarose gel electrophoresis was used to detect that less than 10% of the plasmid DNA was converted to nicked or linear forms.

Nonspecific nuclease activity assay: 5 μg of T4 UvsX Recombinase was incubated with 15 ng of double-stranded DNA fragments at 37°C for 16 hours. Agarose gel electrophoresis was used to detect that there was no change in the double-stranded DNA substrate.

RNase activity assay. 5 μg of T4 UvsX Recombinase was incubated with 500 ng of total RNA at 37°C for 1 hour, and agarose gel electrophoresis was used to detect that over 90% of the RNA remained intact.

Host DNA residue detection: a specific primer probe set for the 16S rDNA of *Escherichia coli* was used, and fluorescence quantitative PCR was used to detect 5 μg T4 UvsX Recombinase. The residual host genomic DNA of Escherichia coli was less than 10 copies.

Heat Inactivation

65°C for 10 minutes

This product is for research use only.