

T4 UvsY Recombinase

Instruction for Use

Cat. No./Spec.: P1151/40 μ L

Concentration: 5mg/mL

Product Description

T4 UvsY Recombinase is a recombinant regulatory protein of T4 bacteriophage with a molecular weight of 16KDa. During homologous recombination, UvsY can enhance the DNA-dependent ATPase activity of UvsX, thereby reducing the concentration required for UvsX to exert its activity, allowing UvsX to gain an advantage over single-stranded binding proteins in the competition, and promoting strand displacement reactions. UvsY works together with other related proteins to complete isothermal amplification reactions.

Components

Component	P1151
T4 UvsY Recombinase (5mg/mL)	40 μ L

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 μ g of T4 UvsY Recombinase was incubated with 200 ng of supercoiled plasmid DNA at 37°C 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 μ g of T4 UvsY 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 μ g of T4 UvsY 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 μ g T4 UvsY 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.