

T4 UvsY Recombinase

REF: EG20403S

Storage Condition

-20°C

Components

Component	Amount
T4 UvsY Recombinase (5 mg/ml)	40 µl

Description

T4 UvsY Recombinase is a recombinational regulatory protein derived from T4 bacteriophage, with a molecular weight of 17 kDa. UvsY stimulates the DNA-dependent ATPase activity of UvsX, lowers the critical concentration of UvsX that is required for activity, and promotes strand exchange. In combination with other related proteins, UvsY can facilitate isothermal amplification reactions.

Quality Control Assays

Protein Purity

The enzyme is ≥95% pure as determined by SDS-PAGE analysis using Coomassie Blue staining.

Endonuclease Activity

A 20 µl reaction containing 200 ng of supercoiled plasmid and 5 µg of T4 UvsY Recombinase incubated for 4 hours at 37°C results in <10% conversion to the nicked or linearized form as determined by agarose gel electrophoresis.

Non-specific Nuclease Activity

A 20 µl reaction containing 15 ng of dsDNA fragments and 5 µg of T4 UvsY Recombinase incubated for 16 hours at 37°C results in no detectable degradation of the dsDNA fragments as determined by agarose gel electrophoresis.

RNase Activity

A 10 µl reaction containing 500 ng of RNA and 5 µg of T4 UvsY Recombinase incubated for 1 hour at 37°C results in >90% of the substrate RNA remains intact as determined by agarose.

Residual Host DNA

The product was tested by TaqMan qPCR with primers specific for the *E.coli* 16S rDNA, and the results show that the *E.coli* genome residues less than 10 copies.

Heat Inactivation

Incubation at 60°C for 10 minutes.