

Catalog #:	Package Size	Concentration
3562	25 µl (50 µg)	5 µg/µl
3565	250 µl (500 µg)	5 µg/µl

Description

Homologous recombination is important for the error-free repair of DNA double-strand breaks and for replication fork restart. Recombinases of the RecA/RAD51 family perform the central catalytic role in this process. UvsX recombinase is the RecA/Rad51 ortholog of bacteriophage T4. UvsX and other recombinases form presynaptic filaments on ssDNA that are activated to search for homology in dsDNA and to perform DNA strand exchange (1-3).

Protein Purity

The physical purity of this enzyme is ≥98% as assessed by SDS-PAGE with Coomassie® blue staining (Fig. 1).

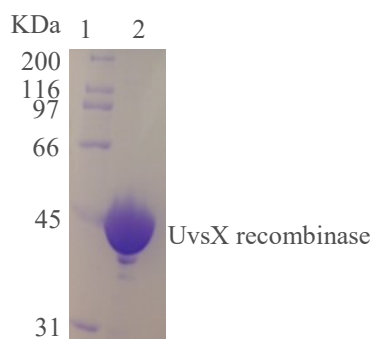


Fig. 1: Lane 1, Protein marker and lane 2, UvsX Recombinase.

Product Source

E. coli BL21 (DE3) strain expressing T4 UvsX gene.

Product Includes

- UvsX Recombinase
- 10X UvsX Recombinase Reaction Buffer

1x UvsX Recombinase reaction buffer composition

20 mM Tris-acetate pH 7.8
 100 mM Potassium acetate
 10 mM Magnesium acetate
 1 mM DTT

Storage Buffer

50 mM Tris-HCl
 50 mM KCl
 1 mM DTT
 0.1 mM EDTA
 50% Glycerol
 pH 7.5 @ 25°C

Storage Temperature

-20°C

Quality Control assays

UvsX recombinase is free from detectable nuclease activities.

References

1. Cromie GA, Connelly JC, Leach DR (2001) Recombination at double-strand breaks and DNA ends: conserved mechanisms from phage to humans. *Mol Cell* 8: 1163–1174
2. Michel B, Grompone G, Flores MJ, Bidnenko V (2004) Multiple pathways process stalled replication forks. *Proc Natl Acad Sci U S A* 101: 12783–12788
3. Liu J, Ehmsen KT, Heyer WD, Morrical SW (2011) Presynaptic filament dynamics in homologous recombination and DNA repair. *Crit Rev Biochem Mol Biol* 46: 240–270