# T4 UvsX DNA Recombinase

Intact Genomics®

| Catalog # | 3562 | 3565 |
|---|---|---|
| Package Size | 100 µg | 500 µg |
| Volume | 20 µl | 100 µl |
| Concentration | 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. Intact Genomics (ig®) 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).

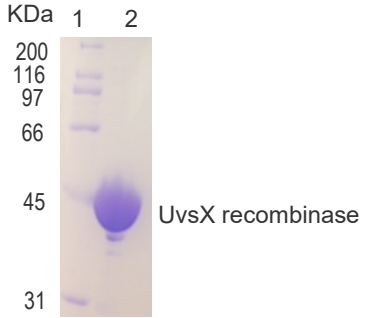


Fig. 1: Lane 1. Protein marker
Lane 2. UvsX Recombinase

## 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

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 @ 25ºC

## Storage Temperature

-20ºC

## 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


## Related Products

- T4 gp32 Protein (Cat.# 3515)
- T4 UvsY Protein (Cat.# 3572)
- Bsu DNA Polymerase (Cat.# 3585)
- Sau DNA Polymerase (Cat.# 3595)
- Exonuclease III (Cat.# 3415)
- Exonuclease IV (Nfo) (Cat.# 3425)

## Technical Support

Intact Genomics is committed to supporting the worldwide scientific research community by supplying the highest quality reagents. Each new lot of our products is tested to ensure they meet the quality standards and specifications designated for the product. Please follow the instructions carefully and contact us if additional assistance is needed. We appreciate your business and your feedback regarding the performance of our products in your applications.