thermo scientific

PRODUCT INFORMATION

MuA Transposase, conc.

Pub. No. MAN0013390
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#F-750C

Lot _ **Expiry Date _**

Store at -25 °C to -15 ºC

Components	#F-750C
MuA Transposase, conc., 1.1 µg/µL	22 µg

For Research Use Only. Not for use in diagnostic procedures.

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Description

MuA Transposase is a single purified polypeptide that catalyzes transposition reaction *in vitro*.

Source

An *E.coli* strain that carries the cloned MuA gene from bacteriophage Mu.

Storage buffer

25 mM HEPES, pH 7.8, 0.1 mM EDTA, 2 mM DTT, 500 mM KCl, 50 % glycerol, non-ionic detergent.

Assay buffer for exonuclease and endonuclease reactions

25 mM Tris-HCl, pH 8.0 at 25°C, 5 mM $MgCl_2$, 5 mM NaCl.

Concentration was determined spectrophotometrically using Pierce 660 nm Protein Assay and Bovine Serum Albumin standard curve (0.125-0.5 mg/mL).

Notes

- Enzyme is supplied with a tube of Dilution Buffer (#F-776).
- It is not recommended to store enzyme dilutions prepared in the buffer.

Activity **was determined by MuA** Transposition Reaction/ Transformation Assay
Transposition reactions (20 µL) were performed using 1 ng/µL of the Entranceposon (M1-CamR), 18.5 ng/µL of the Control Target DNA (9243 bp, AmpR) and 22 ng/µL of the MuA Transposase in 1X reaction buffer (25 mM Tris-HCl pH 8.0 at 20 °C; 10 mM $MgCl_2$; 110 mM NaCl; 0.05 % Triton® X-100; 10 % glycerol). The reaction mixtures were incubated for 1 h at 30 °C followed by heat-inactivation of the MuA Transposase for 10 min at 75 °C. Transposition reaction volume of 10 µL was transformed into chemically competent *E.coli* cells using standard protocol (transformation efficiency > 10^6 cfu/µg pUC57). Dilutions of the transformation mixture were plated on LB plates supplemented with 50 µg/mL ampicillin and 10 µg/mL chloramphenicol. As a result more than thousand chloramphenicol resistant colonies were recovered per single transposition reaction.

Exonuclease activity determined by Labeled Oligonucleotide (LO) Assay: No detectable degradation after incubation of single-stranded or double-stranded radiolabeled oligonucleotides with MuA Transposase**.**

Endonuclease Contamination: No detectable degradation was observed after incubation of supercoiled plasmid DNA with MuA Transposase.

Technical support
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Please refer to www.thermofisher.com for Material Safety Data Sheet of the product.