



PRODUCT INFORMATION

MuA Transposase

Pub. No. MAN0013387

Rev. Date 24 August 2018 (Rev. B.00)

#F-750

Lot _ Expiry Date _

Store at -25 °C to -15 °C

Components	#F-750
MuA Transposase, 0.22 µg/µL	4.4 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 MgCl₂, 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).

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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 MgCl₂; 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 > 10⁶ 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.

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