Manual

T7 Exonuclease Kit

Research use only.

This product is intended for Research Use Only. This product is manufactured under ISO 13485:2016 Quality System Requirements and is available for use as a Raw Material for use in IVD applications. Please contact LGC for further details. For SDS and Certificate of Analysis please contact techsupport@lgcgroup.com.

BIOSEARCH™ TECHNOLOGIES

Manual

T7 Exonuclease Kit

1. Product description

T7 Exonuclease:

T7 Exonuclease is double-stranded specific exonuclease that catalyses the hydrolysis of linear or nicked double-stranded DNA in the 5'->3' direction, releasing mononucleotides. T7 Exonuclease can generate single-stranded DNA templates for sequencing via Sanger sequencing (chain-terminating). T7 Exonuclease can also be used for site-directed mutagenesis, nicked-site extension, and other molecular biology techniques.

10X T7 Exonuclease Reaction Buffer:

Specially optimised reaction buffer containing: 50 mM Potassium Acetate, 20 mM Tris Acetate, 10 mM Magnesium Acetate, 1 mM DTT, pH 7.9 at 25 °C.

2. Concentration

T7 Exonuclease: 10,000 U/mL

T7 Exonuclease Reaction Buffer: 10X

3. Storage and handling

Store at -20 °C upon arrival until provided expiration date. See individual component labels for additional storage recommendations.

4. Quick protocol

The following reaction setup is for a 50 µL reaction to degrade DNA (nicked or linear double-stranded) with blunt ends or with 3' overhangs from the 5' to 3' direction.

1. Prepare all reactions on ice. Thaw the experimental DNA on ice. It is recommended to prepare aliquots of the experimental DNA to minimise freeze/thaw cycles and prevent degradation.
2. Prepare a MasterMix containing the following components.

Component	Volume	Final
T7 Exonuclease	1 µL	0.2 U/µL (10 U)
Experimental DNA	Variable	Up to 1 µg
T7 Exonuclease Reaction Buffer	5 µL	1X
Nuclease free water to volume	Up to 50 µL	Not applicable
Total	50 µL	

Table 1: Example set-up for 50 µL reaction.

3. Incubate the reactions at 25 °C for 30 minutes.
4. Add at least 11 mM of EDTA to stop the reaction.
5. Clean-up samples by either PCR clean-up, gel extraction or phenol/chloroform extraction followed by ethanol precipitation.

5. Ordering information

Item number	Size
300T7EXO-1	2500 units
300T7EXO-2	5000 units

6. Further support

If you require any further support, please do not hesitate to contact our Technical Support Team: techsupport@lgcgroup.com

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