Manual

Version 2.1

Product name: Fragmented DNA End Repair Kit

Cat #: NGFD-100, NGFD-200

Description:

MCLAB's Fragmented DNA End Repair Kit is used for repairing fragmented DNA ends by sonication, nebulization or nucleases. The kit has been optimized to maximize efficiency and convenience in DNA sample preparation workflow for next-generation sequencing (including Illumina® Genomic DNA Sample Prep protocol, Roche 454™ Library Preparation and Life Technologies SOLiD™ Library Preparation).

Components:

Sufficient reagents are supplied in the Fragmented DNA End Repair Kit to convert 20 or 100 fragmented DNA samples to 5´-phosphorylated, blunt ended DNA.

Fragmented DNA End Repair Kit (20 reactions) (NGFD-100):
End Repair Enzyme Mix: 120 µl
End Repair Buffer: 400 µl

Fragmented DNA End Repair Kit (100 reactions) (NGFD-200):
End Repair Enzyme Mix: 600µl
End Repair Buffer: 2 ml

Recommended Storage Conditions: -20°C

Protocol:

1. Prepare up to 5 µg of Fragmented DNA between 100-1000 bp in ≤ 70 µL.
2. Mix the components in a sterile PCR tube as below:

Component	Volume
Fragmented DNA	1-5 µg
5 x End Repair Reaction Buffer	20 µL
End Repair Enzyme Mix	6 µL
Nuclease-free Water	Add till to final 100 µL
Total Volume	100 µL

3. Incubate in a thermal cycler 30 min at 20°C.
4. Inactivate End-Repair Enzyme by heat at 75°C for 20 minutes or purify end repaired DNA sample through QIAquick (Qiagen) column or AMPure XP (Beckman Coulter, Inc.) beads following manufacture's instruction.