

## End Repair/dA-Tailing Master Mix

Catalog No.	40104S	40104L
Reactions	24 reactions	96 reactions

### Description

The **End Repair/dA-Tailing Master Mix** is developed for converting 500 pg - 1 µg of fragmented DNA to repaired DNA with 5' phosphorylated, 3' dA-tailed ends. The Master Mix uses a one-step reaction combining DNA blunting, 5' phosphorylation, and 3' dA-tailing extension to convert randomly fragmented DNA for subsequent ligation with library adaptors. The Master Mix can be coupled with the downstream NGS Ligation Master Mix (Cat # 40105) to enable preparation of high-quality NGS libraries.

The **End Repair/dA-Tailing Master Mix** can work on the following DNA fragments:



The master mix format and the proprietary chemistry makes reaction setup easy and workflow simple. This is an affordable choice for both large and small projects to pursue fast time and high quality, as the Master Mix provides a flexible solution for NGS library prep for different types of DNA input. The Master Mix ensures both sensitivity and efficiency for DNA samples by maximizing the yield for the subsequent ligation process of the sequencing library preparation.

### Features

- Combines the following reactions into one single step
  - DNA blunting
  - 5' phosphorylation
  - 3' dA-tailing extension
- High efficiency for library conversion
- Limited GC bias across the whole genome
- Input DNA: 500 pg to 1 µg

### Component

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End Repair/dA-Tailing Master Mix	96 ul	384 ul

### Storage Condition

- Store kit at -20°C, stable up to 12 months.

### Reagent & Equipment Needed (not provided in this kit)

- Magnetic particle concentrator
- PCR thermal cycler
- 96-well PCR plate
- Magnetic Beads (BioDynamix Cat.# 40051) or equivalent, for subsequent reactions if needed.

## Protocol

- 1) Add the following to one well of a 96-well PCR plate:

DNA fragments	21 ul (500 pg~1 ug)
Master Mix	4 ul
Total	25 ul

- 2) Mix by pipetting ten times.
- 3) Incubate at 20°C for 15 min, 70°C for 5 min.

## Subsequent reaction

- Magnetic beads purification (Recommendation: BioDynamami **Magnetic Beads (DNA & RNA Purification)**, Cat.# 40051)
- Adaptor ligation (Recommendation: Direct ligation reaction is OK with BioDynamami **NGS Ligation Master Mix**, Cat.# 40105, as the DNA fragment purification is not necessary.)

## Quality Control

Reagent passed stringent functional quality test.

## Product Use Limitation

This product is developed and sold for research purposes and *in vitro* use only. Please refer to [biodynamami.com](http://biodynamami.com) for Material Safety Data Sheet of the product.

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