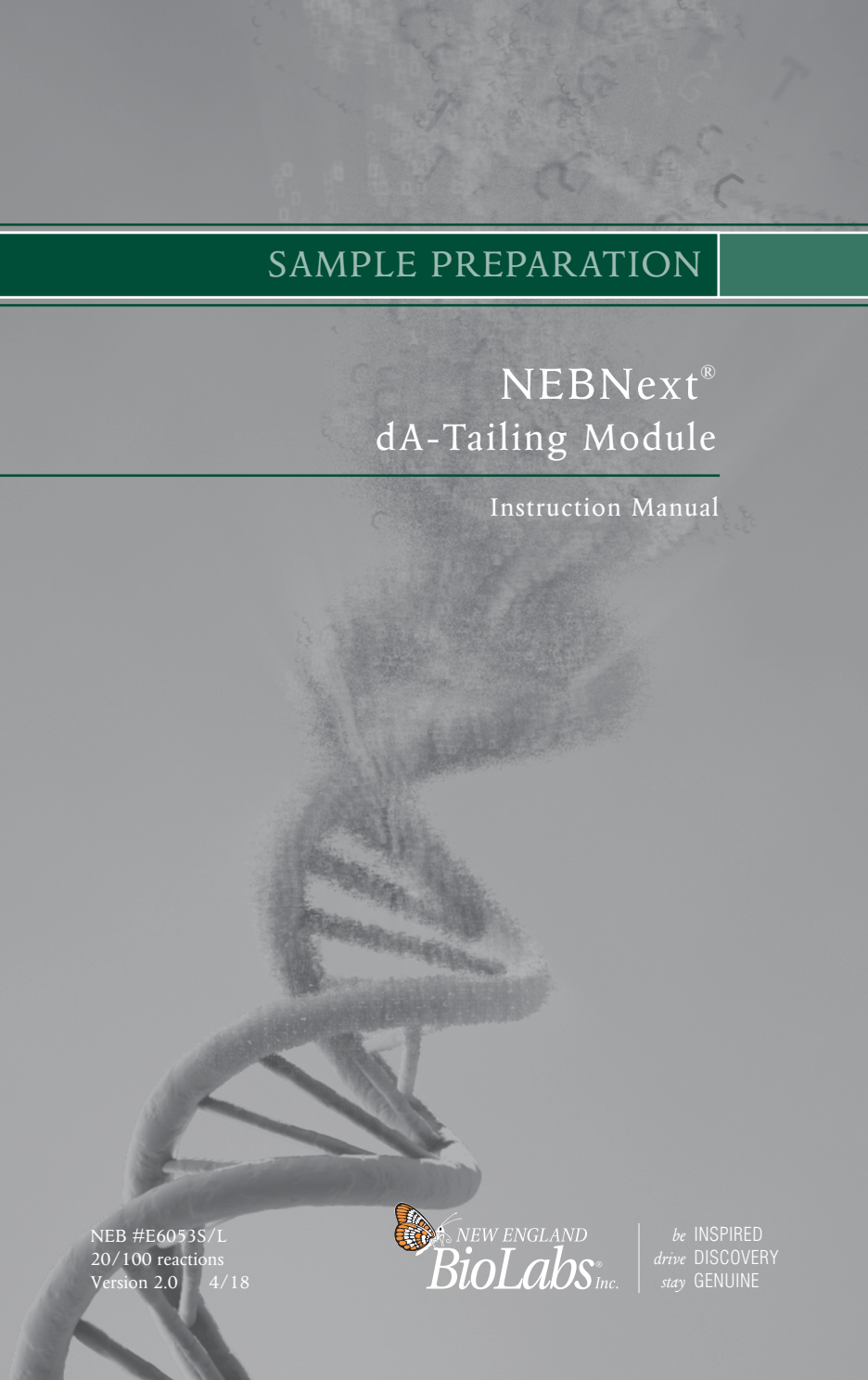
SAMPLE PREPARATION

NEBNext®
dA-Tailing Module

Instruction Manual

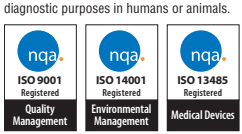


NEB #E6053S/L
20/100 reactions
Version 2.0 4/18

NEW ENGLAND BioLabs® Inc.

be INSPIRED
drive DISCOVERY
stay GENUINE

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.



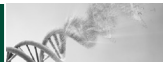


Table of Contents:

The Module Includes:

The volumes provided are sufficient for preparation of up to 20 reactions (NEB #E6053S) and 100 reactions (NEB #E6053L). (All reagents should be stored at –20°C):

Klenow Fragment (3´→5´ exo$^-$)

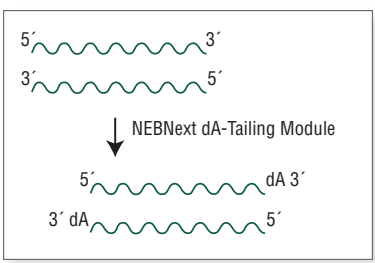
NEBNext dA-Tailing Reaction Buffer (10X)

Description:

The NEBNext dA-Tailing Module has been optimized to efficiently incorporate a non-templated dAMP on the 3´ end of a blunt DNA fragment (1). 3´-dA DNA tailing prevents concadamer formation during subsequent ligation steps. DNA tailed with the NEBNext dA-Tailing module may be ligated to adaptors or cloning vectors with complementary dT overhangs. The NEBNext dA-Tailing Module is provided as a master mix to maximize efficiency and convenience in DNA sample preparation workflows.

The NEBNext dA-Tailing Module has been validated by sequencing with the Illumina Genome Analyzer II (Illumina, Inc.) in conjunction with the NEBNext End Repair Module, NEBNext Quick Ligation Module and Phusion® High-Fidelity PCR Master Mix.

For larger volume requirements, customized and bulk packaging is available by purchasing through the OEM/Bulks department at NEB. Please contact OEM@neb.com for further information.



Applications:

DNA sample preparation

dA-Tailing of 1–5 µg fragmented DNA

Advantages:

- Efficient – Converts 1–5 µg blunt DNA to DNA with 3´-dAMP overhangs
- Convenient – Reactions are provided in master mix format to reduce steps during DNA sample prep workflows
- Automation Friendly

References

1. Clark, J.M. et al. (1987) *J. Mol. Biol.*, 198, 123–127.

NEBNext dA-Tailing Module Protocol

Starting Material: 1–5 µg of of end repaired, blunt DNA (100–1000 bp).

1. Mix the following components in a sterile microfuge tube:

End Repaired, Blunt DNA	variable
NEBNext dA-Tailing Reaction Buffer (10X)	5 µl
Klenow Fragment (3´→5´ exo$^-$)	3 µl
Sterile H_2O	variable
total volume	50 µl

2. Incubate in a thermal cycler for 30 minutes at 37°C.
3. Purify DNA sample on one spin column.

Kit Components

NEB #E6053S Table of Components

NEB #	PRODUCT	VOLUME
E6054A	Klenow Fragment (3´ → 5´ exo$^-$)	0.06 ml
E6055A	NEBNext dA-Tailing Reaction Buffer	0.1 ml

NEB #E6053L Table of Components

NEB #	PRODUCT	VOLUME
E6054AA	Klenow Fragment (3´ → 5´ exo$^-$)	0.30 ml
E6055AA	NEBNext dA-Tailing Reaction Buffer	0.5 ml

Revision History:

REVISION #	DESCRIPTION	DATE
1.1		3/12
2.0	Create "Kit Component – Table of Components" for small and large size kits. Delete individual component information pages.	4/18

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