

NEBNext[®] Quick Ligation Module

NEB #E6056S/L

20/100 reactions

Version 4.0_9/19

Table of Contents

Description	2
Applications.....	2
Advantages	2
Protocol	2
Kit Components.....	3
Revision History	3

The NEBNext Quick Ligation Module Includes

The volumes provided are sufficient for preparation of up to 20 reactions (NEB #E6056S) and 100 reactions (NEB #E6056L). All reagents should be stored at -20°C.

Quick T4 DNA Ligase

NEBNext Quick Ligation Reaction Buffer (5X)

The NEBNext Quick Ligation Module is Designed for use with the Following:

NEBNext Singleplex or Multiplex Oligos for Illumina[®]
(NEB #E7350, #E7335, #E7500, #E6609, #E7710, #E7730 or #E7600)

NEBNext End Repair Module (NEB #E6050)

NEBNext dA-Tailing Module (NEB #E6053)

NEBNext Q5[®] Hot Start HiFi PCR Master Mix (NEB #M0543)

Required Materials Not Included

- Thermal cycler
- AMPure[®] XP Beads (Beckman Coulter, Inc. #A63881) or SPRIselect[®] Reagent Kit (Beckman Coulter, Inc. #B23317)
- 10 mM Tris-HCl, pH 7.5–8.0 or 0.1 μM Tris-HCl, pH 8.0

Description

The NEBNext Quick Ligation Module has been optimized to ligate efficiently DNA adaptors compatible with Illumina sequencing to end-repaired, dA-tailed DNA fragments. The module is optimized for use with the NEBNext End Repair Module (NEB #E6050) and the NEBNext dA-Tailing Module (NEB #E6053) and is part of the original standard DNA library prep workflow, which is suitable for 1–5 µg of input DNA.

Each kit component must pass rigorous quality control standards, and for each new lot the entire set of reagents is functionally validated together by construction and sequencing of an indexed library on the Illumina sequencing platform.

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

Ligation of DNA adaptors to blunt or dA-Tailed DNA

Ligation of blunt or dA-Tailed DNA and cloning vectors

Advantages

- Efficient – Ligates blunt DNA or dA-Tailed DNA
- Convenient – Reactions are provided in master mix format to reduce steps during DNA sample prep workflows
- Automation Friendly

NEBNext Quick Ligation Module Protocol

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

COMPONENT	VOLUME (µl) PER REACTION
End Repaired, Blunt or dA-Tailed DNA	variable
NEBNext Quick Ligation Reaction Buffer (5X)	10 µl
DNA Adaptors (not provided please use adaptors appropriate to specific application)	variable
Quick T4 DNA Ligase	5 µl
Sterile H ₂ O	variable
Total Volume	50 µl

2. Incubate in a thermal cycler for 15 minutes at 20°C with the heated lid set to 30°C.
3. Purify DNA sample using AMPure XP or SPRIselect beads.

Note: For details on how this module is used in the NEBNext Library Prep for Illumina workflow, please see manual for NEBNext DNA Library Prep Master Mix Set for Illumina (NEB #E6040).

Kit Components

NEB #E6056S Table of Components

NEB #	PRODUCT	VOLUME
E6057A	Quick T4 DNA Ligase	0.1 ml
E6058A	NEBNext Quick Ligation Reaction Buffer	0.2 ml

NEB #E6056L Table of Components

NEB #	PRODUCT	VOLUME
E6057AA	Quick T4 DNA Ligase	0.5 ml
E6058AA	NEBNext Quick Ligation Reaction Buffer	1.0 ml

Revision History

REVISION #	DESCRIPTION	DATE
1.2		3/12
2.0	Create "Kit Component – Table of Components" for small and large size kits. Delete individual component information pages	4/18
3.0	Add "Designed for Use", "Materials not Included". Update the description text and the protocol.	1/19
4.0	New Format applied	9/19

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