

User Manual

Version 3.0

Product name: T4 RNA Ligase 2 (truncated) (RNL2)

Cat #: T4RL2T-100, T4RL2T-200, T4RL2T-OEM, B-TR1

Description:

MCLAB's truncated T4 RNA Ligase 2 was developed specifically for the demanding Next-Generation RNA Sequencing applications. The truncated ligase 2 specifically ligates the adenylated 5'-end of an adapter to the 3'-end of RNA. The enzyme does not require ATP for ligation but does need an adenylated substrate. By not having extra ATP in the reaction, the amount of ligation between random RNA molecules is dramatically reduced. Unlike the full length T4 RNA ligase 2, the truncated ligase does not ligate the phosphorylated 5'-end of RNA or DNA without the adenylated substrate, making it an excellent choice for small RNA library preparation. Whether your plan to sequence miRNAs or to perform directional mRNA-Seq, the truncated ligase 2 will help to enhance your library preparations.

Protocol for ssDNA/RNA Ligation:

- Set up the following reaction in a sterile microfuge tube

Components	Volume
ssDNA/RNA substrate	40 pmol
5' pre-adenylated RNA or DNA	40 pmol
10x T4 RNA Ligase 2 Reaction Buffer	2 μ l
T4 RNA Ligase 2 (truncated) (RNL2)	50 - 200 units
Nuclease-free Water	to 20 μ l

- Incubate for 1-2 hours at room temperature.
- Inactivate the enzyme by incubation at 65°C for 20 min.