

For research use only ISO9001

T4 RNA Ligase II

Product	Quantity	Cat. No.	Remarks
T4 RNA Ligase II	1,000 unit	EBT-3011	10 unit/μℓ

Description

T4 RNA Ligase II, also known as T4 Rnl2 (gp24.1), catalyses the formation of an internucleotide phosphodiester bond between an oligonucleotide donor molecule with a 5'-terminal phosphate and an oligonucleotide acceptor molecule with a 3'-terminal hydroxyl. The enzyme requires an adjacent 5-phosphate and 3'-OH for ligation. The enzyme can also ligate the 3'-OH of RNA to the 5'-phosphate of DNA in a double stranded nucleic acids. T4 RNA ligase II is expressed and purified from *E.coli*.

Applications

- Ligate a nick in dsRNA
- Ligate the 3' OH of RNA to the 5' phosphate of DNA in a double stranded structure

Reagents Supplied & Storage Condition

- T4 RNA Ligase II: 10 unit/\(\mu \), Store at -20°C.
- 10x T4 RNA Ligase II Reaction Buffer: Store at 4°C.

Reaction Condition

T4 RNA Ligae II in 1X T4 RNA RNA ligase II Reaction Buffer. Incubate at 37°C.

10x Reaction Buffer

500 mM Tris-HCl (pH 7.5), 20 mM MgCl₂, 10 mM DTT, 4 mM ATP.

Storage Buffer

10 mM Tris-HCl (pH 7.5), 50 mM KCl, 35 mM (NH $_4$) $_2$ SO $_4$, 0.1 mM DTT, 0.1 mM EDTA, 50% Glycerol.

Unit Definition

One unit is defined as the amount of enzyme required to ligate 0.4 µg of an equimolar mix of a 23-mer and 17-mer RNAs in a total reaction volume of 20 µl in 30 minutes at 37°C.

QC Tests

Activity, exo and endonuclease activity test, SDS-PAGE purity, performance tests.



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