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I. DESCRIPTION

GenScript 2xQuick Ligation Premix is a ready-to-use mixture of high quality T4 DNA Ligase (GenScript, Cat. No. E00016) optimized quick ligation buffer and stabilizer. It offers high efficiency ligations, particularly for cohesive-ends ligation and TA cloning. The reaction can be finished quickly for either 5 minutes at 25°C or 30 minutes at 16°C with equal results for both circular and linear DNA ligations. The 2x Quick Ligation Premix allows small ligation reaction volumes (10 µl) when DNA is limiting, and sufficient reagent for 50 ligation reactions. The reaction product can be used directly in bacterial transformations without DNA purification.

II. KEY FEATURES

- Convenient, all reagents of ligation are included in the premix expect ligation target
- Strongly T4 DNA Ligase included, easy for circular and linear DNA ligations
- Stable, no detectable activity reduction of ligation performance is observed after storage for four weeks at 4°C

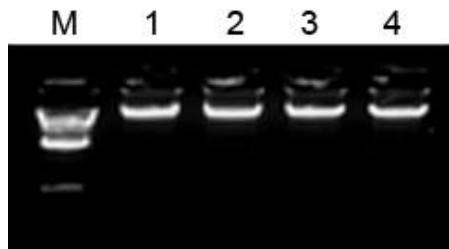
III. APPLICATIONS

GenScript 2x Quick Ligation Premix can be used in most ligation reactions including the following:

- Cloning of restriction fragments
- Blunt-ends or cohesive-ends DNA ligation
- TA cloning

IV. EXAMPLE

Product stability test: ligation λ DNA digested by *Hind* III with different temperature stored



Lane M: λ DNA digested by *Hind* III (1 μ g)

Lane 1: 16°C storage 1 month

Lane 2: 4°C storage 1 month

Lane 3: -20°C storage over 4 months

Lane 4: CK+ (-20°C)

V. SHIPPING AND STORAGE

This product is shipped on blue ice. Store the product at -20°C.

VI. GENERAL PROTOCOL USING 2x QUICK LIGATION PREMIX

This is a general PCR amplification protocol. Optimization may be needed to get satisfactory results.

- Set up 10 μ l ligation reaction by adding the following reagents to a thin-walled tube and mixing gently.

Reagent	Volume
2x Quick Ligation Premix	5 μ l
Vector*	X μ l
Insert*	1 μ l
Distillation Water	1 μ l
Total	10 μ l

*We recommend molar ratio vector: insert = 1:3.

- Reaction condition:

The reaction can be finished quickly for either 5 minutes at 25°C or 30 minutes at 16°C. When using for blunt-ends ligation, you need extend reaction time properly.

Note:

- This is a basic protocol. Our products have optimization reagent concentrations, you can use it directly.
- This protocol is for general ligation reaction, you can choose different volume, different number reaction.
- Our product maybe not frozen at -20°C because added organic stabilizer, it will not affect use.

VII. ORDER INFORMATION

2x Quick Ligation Premix

Cat. No. E00022

For Research Use Only.

GenScript USA Inc.

860 Centennial Ave., Piscataway, NJ 08854, USA

Toll-free Tel: 1-877-436-7274

Fax: 1-732-210-0262

Email: product@genscript.com

Web: www.genscript.com

860 Centennial Ave., Piscataway, NJ 08854

Tel: 732-885-9188

Fax: 732-210-0262, 732-885-5878

Email: info@genscript.com

Web: <http://www.Genscript.com>

* The PCR process is covered by US. Patent numbers 4683195 and 4683202 issued to Cetus and owned by Hoffman-La Roche Inc. GenScript does not encourage or support the unauthorized use of the PCR process. Use of this product is recommended for persons that either have a license to perform PCR or are not required to obtain a license.