

Taq DNA Ligase

Introduction

Taq DNA Ligase is a thermostable ligase that catalyzes the formation of phosphodiester bonds between the 5'-phosphate and 3'-hydroxyl groups of two adjacent oligonucleotide chains that hybridize to the same complementary target DNA strand. This reaction occurs only when the two oligonucleotide chains are perfectly paired with the target DNA with no gaps, making it suitable for single-base substitution detection. Taq DNA Ligase uses NAD^+ as a cofactor and remains active within a temperature range of 45 - 65°C.

Components and Storage

Size	K3153-1000U	Storage
Components		
Taq DNA Ligase	25 μL	-20°C
10× Taq DNA Ligase Reaction Buffer	1 mL	-20°C
Shipping: Dry Ice		Shelf life: 2 years

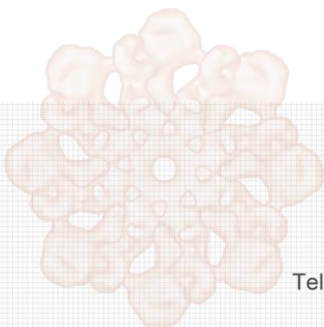
Protocol

1. Prepare the following reaction mixture on ice:

Reagent	Amount	final concentration
10× Taq DNA Ligase Reaction Buffer	2.5 μL	1×
Taq DNA Ligase	1 μL	40 U/ μL
λ -DNA	1 μL	500 $\mu\text{g/mL}$
H_2O	To 25 μL	/

2. Mix gently and spin down, then incubate at 45°C for 30 minutes;

3. Terminate the reaction by adding a termination buffer (50% glycerol, 50 mM EDTA, and bromophenol blue). Do not heat-inactivate the enzyme.



APEx BIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

