

DPN I

(M013)

Product Description

Dpn I is a **recombinant restriction endonuclease** engineered for precise DNA cleavage, suitable for digesting plasmid DNA, PCR products, genomic DNA, and other DNA substrates.

Product Specifications

Product Name	Cat. No.	Volume
Dpn I	REN001-A	50 µL
10×Reaction Buffer	REN001-B	1 mL

Storage Conditions

Storage: **-30 ~ -15 °C**

Shipping: ≤ 0 °C (ice pack)

Recognition Site

5'-GA↓TC-3'

3'-CT ↑AG-5'

Quality Control

1. Functional Activity Assay

At the optimal reaction temperature, **1 µL of enzyme** completely digests **1 µg of λ DNA (Dam⁻)** within 15 minutes in a 20 µL reaction system.

2. Prolonged Incubation Assay

At the optimal reaction temperature, **1 µL of enzyme** is incubated with **1 µg of λ DNA (Dam⁻)** for 3 hours. No non-specific degradation of the substrate due to nuclease contamination or star activity is detected. Prolonged incubation may result in star activity.

3. Cut-Ligate-Recut Assay

At the optimal reaction temperature, substrates are digested with **1 µL of enzyme** and recovered. Digested products can be religated with an appropriate amount of T4 DNA Ligase at 22 °C. Religated products are recovered and can be recut with the same restriction endonuclease.

4. Non-Specific Endonuclease Assay

At the optimal reaction temperature, **1 μ L of enzyme** is incubated with **1 μ g of supercoiled plasmid DNA** for 4 hours.

Agarose gel electrophoresis shows that the plasmid DNA remains in supercoiled form.