

DpnI

Cat. No. E026

Store at -20°C.

Description

The **DpnI** restriction enzyme digests DNA at G^{me}A↓TC sites, requiring N6-methylation of the adenine residue for activity. DNA purified from a *dam*⁺ *E. coli* strain will be a substrate for DpnI due to the adenine methylation. DpnI cleaves hemi-methylated *dam* sites 60X more slowly than fully methylated *dam* sites.

Product Component	Quantity	Part No.
DpnI (20000 U/ml)	100 µl	E026
10X Universal Restriction Enzyme Reaction Buffer	1.25 ml	E204

Protocol

Reaction Conditions

One unit is defined as the amount of DpnI required to digest 1 µg of *dam* methylated pBR322 DNA in 1 hour at 37°C in a total reaction volume of 50 µl.

10X Reaction Buffer Components

500 mM Potassium Acetate, 200 mM Tris-acetate, 100 mM Magnesium Acetate, 100 µg/ml BSA, pH 7.9 @ 25°C

Heat inactivation

65°C for 20 minutes.

General Notes

- One unit is defined as the amount of restriction enzyme needed to digest 1 µg of *dam* methylated pBR322 DNA in 1 hour at 37°C in a reaction volume of 50 µl.
- Recognition Sequence:
 - 5'...GA(CH₃)↓TC...3'
 - 3'...CT↑A(CH₃)G...5'
- Methylation Sensitivity
 - dam* methylation: Not sensitive
 - dcm* methylation: Not sensitive
 - CpG methylation: Blocked by overlapping