DpnI

Cat. No. E026
Store at -20°C.

Product 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	2000 U (100 µl)	E026
10X Universal Restriction Enzyme Reaction Buffer	1.25 ml	E204

Protocol
1. Use DpnI with 1X Universal Restriction Enzyme Reaction Buffer and incubate at 37°C.
2. Heat inactivate at 65°C for 20 minutes.

General Notes
- Recognition Sequence:
  - 5'…GA(CH□) ↓ TC…3'
  - 3'…CT ↑ A(CH□)G…5'

- Methylation Sensitivity:
  - dam methylation: Not sensitive
  - dcm methylation: Not sensitive
  - CpG methlyation: Blocked by overlapping

- Reaction Buffer Compatibility:
  - Buffer 1: 100%
  - Buffer 2: 100%
  - Buffer 3: 75%
  - Universal Buffer: 100%

- Enzyme Unit Definition:
  - 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.