

Restriction Enzyme Dpn I



Cat.# Size FG-Dpnl 1,000 units Conc. 20 units/µl

Store at -20℃

Supplied with: 10X FastGene® Buffer IV (FG-REB4)

10X FastGene® FastCut Buffer (FG-REBHF) 6X DNA Loading Buffer

Sterile water

Sterile wate

Recognition site

For Research Use Only. Not for use in diagnostic procedures.

ISO9001

Dilution buffer:

FastGene® Diluent B

Heat Inactivation

Dpn I can be inactivated at 80°C for 20 min.

Prolonged incubation

A minimum amount of enzyme required to digest 1 μg substrate DNA for 16 hr; 0.13 U.

Relative activity in FastGene® Buffers

 FastGene® Buffer I:
 75%

 FastGene® Buffer II:
 100%

 FastGene® Buffer III:
 100%

 FastGene® Buffer IV:
 100%

 FastGene® FastCut Buffer:
 100%

Note

It cleaves methylated recognition sites only. DNA purified from a dam^* strain should be used.

Source: Diplococcus pneumoniae G41

Reaction conditions

1X FastGene[®] Buffer IV, 37°C 1X FastGene[®] FastCut Buffer, 37°C

FastGene® FastCut Buffer

FastGene® restriction enzyme can cut substrate DNA in 5-15 with FastGene® FastCut Buffer.

1X FastGene® Buffer IV

20 mM Tris-acetate (pH 7.9 at 25°C) 50 mM potassium acetate 10 mM magnesium acetate 100 μα/ml BSA

Unit definition

One unit is defined as the amount of enzyme required for complete digestion of 1 μ g pBR322 (dam+) at 37°C for 1 hr in 50 μ l reaction mixtures.

Quality control

- Unit definition assay
- Overdigestion assay
- Endonuclease assay
- Extreme pure assay

Standard reaction condition

- Normal protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	Χ μΙ
10X FastGene® Buffer IV	1 X	5 μΙ
Dpn I	20 unit	1 μΙ
Sterile water		up to 50 μl

- → Incubate at 37°C for 1 hr
- Fast protocol

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Component	Final Conc.	Volume
Substrate DNA	1 μg	Χ μΙ
10X FastGene® FastCut Buffer	1 X	5 μΙ
Dpn I	20 unit	1 μΙ
Sterile water		up to 50 μl

→ Incubate at 37°C for 15 min

 $\ensuremath{\mathbb{X}}$ We recommend 5-10 units of enzyme per μg DNA and 10-20 units for genomic DNA in a 1 h digest.