



Restriction Enzyme

Pst I

III 37° 80°

Cat.# FG-PstI Size 10,000 units Conc. 20 units/μl

Store at -20°C

Supplied with: 10X FastGene® Buffer III (FG-REB3)
10X FastGene® FastCut Buffer (FG-REBHF)
6X DNA Loading Buffer
Sterile water

Recognition site



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

ISO9001

Source: *Providencia stuartii* 164

Reaction conditions

1X FastGene® Buffer III, 37°C
1X FastGene® FastCut Buffer, 37°C

FastGene® FastCut Buffer

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

1X FastGene® Buffer III

50 mM Tris-HCl (pH 7.9 at 25°C)
100 mM NaCl
10 mM MgCl₂
100 μg/ml BSA

Unit definition

One unit is defined as the amount of enzyme required for complete digestion of 1 μg bacteriophage λ at 37°C for 1 hr in 50 μl reaction mixtures.

Quality control

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

Dilution buffer

FastGene® Diluent C

Heat Inactivation

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

Methylation sensitivity

dam methylation: Not sensitive
dcm methylation: Not sensitive
CpG methylation: Not sensitive

Prolonged incubation

A minimum amount of enzyme required to digest 1 μg substrate DNA for 16 hr; 0.5 U.

Relative activity in FastGene® Buffers

FastGene® Buffer I: 100%
FastGene® Buffer II: 100%
FastGene® Buffer III: 100%
FastGene® Buffer IV: 75%
FastGene® FastCut Buffer: 100%

Standard reaction condition

- Normal protocol

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

→ Incubate at 37°C for 1 hr

- Fast protocol

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

→ Incubate at 37°C for 15 min

※ We recommend 5-10 units of enzyme per μg DNA and 10-20 units for genomic DNA in a 1 h digest.



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- Overdigestion assay
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- Extreme pure assay

Dilution buffer

FastGene® Diluent C

Heat Inactivation

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Methylation sensitivity

dam methylation: Not sensitive
dcm methylation: Not sensitive
CpG methylation: Not sensitive

Prolonged incubation

A minimum amount of enzyme required to digest 1 μg substrate DNA for 16 hr; 0.5 U.

Relative activity in FastGene® Buffers

FastGene® Buffer I: 100%
FastGene® Buffer II: 100%
FastGene® Buffer III: 100%
FastGene® Buffer IV: 75%
FastGene® FastCut Buffer: 100%

Standard reaction condition

- Normal protocol

Component	Final Conc.	Volume
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10X FastGene® Buffer III	1 X	5 μl
Pst I	20 unit	1 μl
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Pst I	20 unit	1 μl
Sterile water		up to 50 μl

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