FastGene®

Restriction Enzyme Ple I

IV 37° 65°

Cat.#	Size	Conc.
FG-PleI	1,000 units	5 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

Recognition site

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

ISO9001

Source: *Pseudomonas lemoignei*

Reaction conditions
1X FastGene® Buffer IV 37℃
1X FastGene® FastCut Buffer, 37℃

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℃)
50 mM potassium acetate
10 mM magnesium acetate
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℃ for 1 hr in 50 μl reaction mixtures.

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

Dilution buffer:
FastGene® Diluent A

Heat Inactivation
Ple I can be inactivated at 65℃ for 20 min.

Methylation sensitivity
dam methylation: Not sensitive
dcm methylation: Not sensitive
CpG methylation: Conditionally sensitive

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

Relative activity in FastGene® Buffers

FastGene® Buffer I:	75%
FastGene® Buffer II:	75%
FastGene® Buffer III:	50%
FastGene® Buffer IV:	100%
FastGene® FastCut Buffer:	100%

Note
It is an isoschizomer of Mly I. Cleavage of mammalian genomic DNA is blocked by CpG methylation.

Standard reaction condition
- Normal protocol

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

→ Incubate at 37℃ for 1 hr

- Fast protocol

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

→ Incubate at 37℃ 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.

NIPPON Genetics EUROPE GmbH
www.nippongenetics.eu
www.n-genetics.com

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Recognition site

5' ··· G A G T C (N)4 ··· 3'
3' ··· C T C A G (N)5 ··· 5'

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FastGene® Buffer I: 75%
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FastGene® Buffer III: 50%
FastGene® Buffer IV: 100%
FastGene® FastCut Buffer: 100%

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- Fast protocol

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