

G Fast Gene **Restriction Enzyme** PluT I

Cat.# Size Conc. FG-PluTI 500 units 10 units/ul

IV (37°) 65° (pG

Store at -20°C

Supplied with: 10X FastGene® Buffer IV (FG-RFB4) 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 Photorhabdus luminescens

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 min 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 µg/ml BSA

Unit definition

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

Quality control

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

Dilution buffer FastGene® Diluent A

Heat Inactivation PluT I can be inactivated at 65°C for 20 min.

Methylation sensitivity

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

Relative activity in FastGene® Buffers

FastGene® Buffer I: 75% 25% FastGene® Buffer II: 10% FastGene® Buffer III: 100% FastGene® Buffer IV: FastGene[®] FastCut Buffer: 100%

Note

PluT I requires two copies of its recognition sequence for cleavage to occur.

Standard reaction condition

- Normal protocol

Component	Final Conc.	Volume
Substrate DNA	1 µg	Xμl
10X FastGene [®] Buffer IV	1 X	5 µl
PluT I	10 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	Xμl
10X FastGene® FastCut Buffer	1 X	5 µl
PluT I	10 unit	1 µl
Sterile water		up to 50 µl
→ Incubate at 37°C for 15 min	1	

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

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

G Fast Gene

Restriction Enzyme PluT I (IV) (37°) 65° (CpG)

Cat.#	Size
FG-PluTI	500 units

Store at -20℃

Supplied with: 10X FastGene® Buffer IV (FG-REB4) 10X FastGene® FastCut Buffer (FG-REBHF) 6X DNA Loading Buffer Sterile water

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Source Photorhabdus luminescens

Reaction conditions

Conc.

10 units/µl

1X FastGene® Buffer IV, 37℃ 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 IV

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Quality control

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



PluT I can be inactivated at 65℃ for 20 min.

Methylation sensitivity

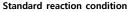
dcm methylation: Not sensitive CpG methylation: Sensitive

Relative activity in FastGene[®] Buffers

astGene®	Buffer I:	75%
astGene®	Buffer II:	25%
astGene®	Buffer III:	10%
astGene®	Buffer IV:	100%
astGene®	FastCut Buffer:	100%

Note

PluT I requires two copies of its recognition sequence for cleavage to occur.



- Normal protocol

Component	Final Conc.	Volume
Substrate DNA	1 µg	X µl
10X FastGene [®] Buffer IV	1 X	5 µl
PluT I	10 unit	1 µl
Sterile water		up to 50 µl
\rightarrow Incubate at 37°C for 1 hr		

Component	Final Conc.	Volume
Substrate DNA	1 µg	X µl
10X FastGene® FastCut Buffer	1 X	5 µl
PluT I	10 unit	1 µl
Sterile water		up to 50 µl
1 1 1 1 2700 6 45 1		

→ Incubate at 37°C for 15 min

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

FastGene® Diluent A

Heat Inactivation

dam methylation: Not sensitive

_	- Fast protocol		
	Component	Final Conc.	١
5	Substrate DNA	1 µg	
•	10X FastGene [®] FastCut Buffer	1 X	
1		10 unit	