



# Restriction Enzyme PluT I

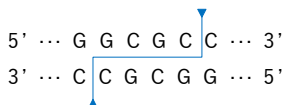


<b>Cat.#</b> FG-PluTI	<b>Size</b> 500 units	<b>Conc.</b> 10 units/μl
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Store at -20°C

**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.



## 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 assay
- Overdigestion assay
- Endonuclease assay
- Extreme pure assay

## Standard reaction condition

- 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
→ 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
PluT I	10 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.

## 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%
FastGene® Buffer II:	25%
FastGene® Buffer III:	10%
FastGene® Buffer IV:	100%
FastGene® FastCut Buffer:	100%

## Note

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