



Restriction Enzyme

PaeR7 I



| | | |
|---------------------------|----------------------------|-----------------------------------|
| Cat.# FG-PaeR7I | Size 2,000 units | Conc. 20 units/ μ l |
|---------------------------|----------------------------|-----------------------------------|

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.

ISO9001

Dilution buffer:

FastGene® Diluent A.

Heat Inactivation

No.

Methylation sensitivity

dam methylation: Not sensitive*dcm* methylation: Not sensitive

CpG methylation: Sensitive

Relative activity in FastGene® Buffers

| | |
|---------------------------|------|
| FastGene® Buffer I: | 25% |
| FastGene® Buffer II: | 100% |
| FastGene® Buffer III: | 10% |
| FastGene® Buffer IV: | 100% |
| FastGene® FastCut Buffer: | 100% |

Note

It is an isoschizomer of Xho I. Cleavage of mammalian genomic DNA is inhibited by CpG methylation.

Source: *Pseudomonas aeruginosa* PA0303 pMG7

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 μ g/ml BSA

Unit definition

One unit is defined as the amount of enzyme required to digest 1 μ g of λ HindIII DNA in 1 hour at 37°C in a total reaction volume of 50 μ l.

Quality control

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

Standard reaction condition

- Normal protocol

| Component | Final Conc. | Volume |
|-------------------------|-------------|------------------|
| Substrate DNA | 1 μ g | X μ l |
| 10X FastGene® Buffer IV | 1 X | 5 μ l |
| PaeR7 I | 20 unit | 1 μ l |
| Sterile water | | up to 50 μ l |

→ Incubate at 37°C for 1 hr

- Fast protocol

| Component | Final Conc. | Volume |
|------------------------------|-------------|------------------|
| Substrate DNA | 1 μ g | X μ l |
| 10X FastGene® FastCut Buffer | 1 X | 5 μ l |
| PaeR7 I | 20 unit | 1 μ l |
| Sterile water | | up to 50 μ l |

→ Incubate at 37°C for 15 min

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