



## Restriction Enzyme

### CviA I



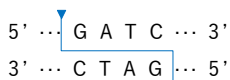
<b>Cat.#</b> FG-CviAI	<b>Size</b> 200 units	<b>Conc.</b> 5 units/ $\mu$ l
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**Expire date:**

**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

#### Source

CviAI gene from *Chlorella virus* PBCV-1

#### 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  $\mu$ g/ml BSA

#### Unit definition

One unit is defined as the amount of enzyme required to digest 1  $\mu$ g of Lambda DNA(dam-) in 1 hour at 37°C in a total reaction volume of 50  $\mu$ 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 $\mu$ g	X $\mu$ l
10X FastGene® Buffer IV	1 X	5 $\mu$ l
CviA I	5 unit	1 $\mu$ l
Sterile water		up to 50 $\mu$ l
→ Incubate at 37°C for 1 hr		

- Fast protocol

Component	Final Conc.	Volume
Substrate DNA	1 $\mu$ g	X $\mu$ l
10X FastGene® FastCut Buffer	1 X	5 $\mu$ l
CviA I	5 unit	1 $\mu$ l
Sterile water		up to 50 $\mu$ l
→ Incubate at 37°C for 15 min		

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

#### Dilution buffer

FastGene® Diluent A

#### Heat Inactivation

65°C for 20 min.

#### Methylation sensitivity

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

#### Relative activity in FastGene® Buffers

FastGene® Buffer I:	10%
FastGene® Buffer II:	50%
FastGene® Buffer III:	10%
FastGene® Buffer IV:	100%
FastGene® FastCut Buffer:	100%

#### Note

- It is an isoschizomer of Mbo I.
- DNA cleavage is blocked by *dam* methylation.