



# Restriction Enzyme NgoM IV

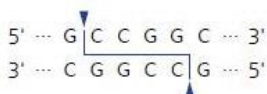


<b>Cat.#</b> FG-NgoMIV	<b>Size</b> 1,000 units	<b>Conc.</b> 10 units/µl
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Store at -20°C

**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.



### Dilution buffer:

FastGene® Diluent A

### Heat Inactivation

No heat inactivation.

### Methylation sensitivity

*dam* methylation: Not sensitive

*dcm* methylation: Not sensitive

CpG methylation: sensitive

### Prolonged incubation

A minimum amount of enzyme required to digest 1 µg substrate DNA for 16 hr; 0.13 U.

### Relative activity in FastGene® Buffers

FastGene® Buffer I:	25%
FastGene® Buffer II:	75%
FastGene® Buffer III:	0%
FastGene® Buffer IV:	100%
FastGene® FastCut Buffer:	100%

### Note

Cleavage of mammalian genomic DNA is blocked by CpG methylation.

**Source:** *Neisseria gonorrhoeae* MS11

### 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 µg/ml BSA

### Unit definition

One unit is defined as the amount of enzyme required for complete digestion of 1 µg pBR322 at 37°C for 1 hr in 50 µl reaction mixtures.

### 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
NgoM IV	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
NgoM IV	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.