



Restriction Enzyme

Apo I



Cat.#	Size	Conc.
FG-Apol	1,000 units	10 units/μl

Store at -20°C

Supplied with: 10X FastGene® Buffer III (FG-REB3)
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

Arthrobacter protophormiae

Reaction conditions

- 1X FastGene® Buffer III 50°C
- 1X FastGene® FastCut Buffer, 50°C

FastGene® FastCut Buffer

FastGene® restriction enzyme can cut substrate DNA in 5-15 min with FastGene® FastCut Buffer.

1X FastGene® Buffer III

50 mM Tris-HCl (pH 7.9 at 25°C)
100 mM NaCl
10 mM MgCl₂
100 μg/ml BSA

Unit definition

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

Quality control

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

Dilution buffer

FastGene® Diluent A

Heat Inactivation

80°C for 20 min

Methylation sensitivity

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

Relative activity in FastGene® Buffers

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

Note

Cleaves to leave 5' AATT extension which can be ligated to DNA fragments generated by EcoR I digestion.

Standard reaction condition

- Normal protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X FastGene® Buffer III	1 X	5 μl
Apo I	10 unit	1 μl
Sterile water		up to 50 μl
→ Incubate at 50°C for 1 hr		

- Fast protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X FastGene® FastCut Buffer	1 X	5 μl
Apo I	10 unit	1 μl
Sterile water		up to 50 μl
→ Incubate at 50°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.