



Restriction Enzyme Bgl II



Cat.#	Size	Conc.
FG-BglII	2,000 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.



Source: *Bacillus globigii*

Reaction conditions

1X FastGene® Buffer III, 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 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 for complete digestion of 1 μg bacteriophage λ 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 III	1 X	5 μl
Bgl II	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
Bgl II	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

No.

Methylation sensitivity

dam methylation: Not sensitive

dcm methylation: Not sensitive

CpG methylation: Not sensitive

Prolonged incubation

A minimum amount of enzyme required to digest 1 μg substrate DNA for 16 hr; 0.25 U.

Relative activity in FastGene® Buffers

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

Note

It is not sensitive to *dam*, *dcm* or mammalian CpG methylation. It displays two-fold higher activity at pH 9.5 than pH 7.5. It is highly sensitive to impure DNA and buffer condition. It can cleave DNA with at least 2 bases on each side of cleavage site after 20-hr incubation, but it cleaves only 25% of DNA with 3 bases on each side after 2-hr digestion.