



Restriction Enzyme

Swa I



Cat.# FG-SwaI	Size 2,000 units	Conc. 4 units/ μ l
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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

Dilution buffer:

FastGene® Diluent B.

Heat Inactivation

Swa I can be inactivated at 65°C for 20 min.

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 μ g substrate DNA for 16 hr; 0.25 U.

Relative activity in FastGene® Buffers

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

Note

It is not affected by *dam*, *dcm*, or mammalian CpG methylation. Incubation at 37°C results in 50% activity.

Source: *Staphylococcus warneri*

Reaction conditions

1X FastGene® Buffer III 25°C
1X FastGene® FastCut Buffer, 25°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 μ g/ml BSA

Unit definition

One unit is defined as the amount of enzyme required for complete digestion of 1 μ g pSK.M3 at 25°C for 1 hr in 50 μ l 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 μ g	X μ l
10X FastGene® Buffer III	1 X	5 μ l
Swa I	4 unit	1 μ l
Sterile water		up to 50 μ l

→ Incubate at 25°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
Swa I	4 unit	1 μ l
Sterile water		up to 50 μ l

→ Incubate at 25°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.