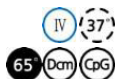




Restriction Enzyme StyD4 I



Cat.# FG-StyD4I	Size 200 units	Conc. 5 units/ μ l
---------------------------	--------------------------	----------------------------------

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

Dilution buffer:

FastGene® Diluent B

Heat Inactivation

StyD4 I can be inactivated at 65°C for 20 min.

Methylation sensitivity

dam methylation: Not sensitive

dcm methylation: Conditionally sensitive

CpG methylation: Conditionally sensitive

Relative activity in FastGene® Buffers

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

Note

Cleavage is blocked by *dcm* methylation overlapping its recognition sequence. Cleavage of mammalian genomic DNA can be blocked by CpG methylation that partially overlaps its recognition sequence.

Source: *Salmonella typhi* D4

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 μ g/ml BSA

Unit definition

One unit is defined as the amount of enzyme required to digest 1 μ g of λ DNA in 1 hour at 37°C in a total reaction volume of 50 μ 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 μ g	X μ l
10X FastGene® Buffer IV	1 X	5 μ l
StyD4 I	5 unit	1 μ l
Sterile water		up to 50 μ l

→ Incubate at 37°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
StyD4 I	5 unit	1 μ l
Sterile water		up to 50 μ l

→ Incubate at 37°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.