



Restriction Enzyme

Msp I



| Cat.# | Size | Conc. |
|---------|-------------|-------------|
| FG-Mspl | 5,000 units | 20 units/μl |

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 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; 0.5 U.

Relative activity in FastGene® Buffers

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

Note

It is an isoschizomer of Hpa II. It is not affected by *dam*, *dcm*, or mammalian CpG methylation. However MspI can not digestion, when the external C in the sequence CCGG is methylated.

Source: *Moraxella* species

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 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 IV | 1 X | 5 μl |
| Msp I | 20 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 |
| Msp I | 20 unit | 1 μl |
| Sterile water | | up to 50 μl |

→ Incubate at 37°C for 15 min

※'Standard conditions' is only a general recommendation. The experimental conditions should be adjusted according to the purpose and sample.