



Restriction Enzyme Mbo I



Cat.#	Size	Conc.
FG-Mbol	500 units	4 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: *Moraxella bovis*

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 (*dam* -) at 37°C for 1 hr in 50 μl reaction mixtures.

Quality control

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

Dilution buffer:

FastGene® Diluent A

Heat Inactivation

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

Methylation sensitivity

dam methylation: sensitive
dcm methylation: Not sensitive
CpG methylation: Conditionally 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: 100%
FastGene® Buffer IV: 100%
FastGene® FastCut Buffer: 100%

Note

It is an isoschizomer of Dpn II and Sau3A I. It leaves a 5' GATC extension, which can be efficiently ligated into DNA cleaved by BamH I, Bcl I, Bgl II, BstY I, Dpn II, or Sau3A I. Cleavage is blocked by *dam* methylation. Cleavage of mammalian genomic DNA is impaired by CpG methylation partially overlapping its recognition sequence.

Standard reaction condition

- Normal protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X FastGene® Buffer III	1 X	5 μl
Mbo I	4 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
Mbo I	4 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.



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dcm methylation: Not sensitive
CpG methylation: Conditionally 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: 100%
FastGene® Buffer IV: 100%
FastGene® FastCut Buffer: 100%

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