



## Restriction Enzyme

### TspM I

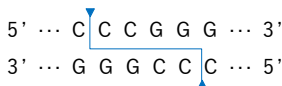


<b>Cat.#</b> FG-TspMI	<b>Size</b> 200 units	<b>Conc.</b> 5 units/μl
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Store at -20°C

**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.



#### Source

*Thermus* species

#### Reaction conditions

1X FastGene® Buffer IV, 75°C  
1X FastGene® FastCut Buffer, 75°C

#### FastGene® FastCut Buffer

FastGene® restriction enzyme can cut substrate DNA in 5-15 min 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 to digest 1 μg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 μl.

#### 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
TspM I	5 unit	1 μl
Sterile water		up to 50 μl
→ Incubate at 75°C for 1 hr		

- Fast protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X FastGene® FastCut Buffer	1 X	5 μl
TspM I	5 unit	1 μl
Sterile water		up to 50 μl
→ Incubate at 75°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 B

#### Heat Inactivation

No.

#### Methylation sensitivity

*dam* methylation: Not sensitive  
*dcm* methylation: Not sensitive  
CpG methylation: Sensitive

#### Relative activity in FastGene® Buffers

FastGene® Buffer I:	50%
FastGene® Buffer II:	75%
FastGene® Buffer III:	50%
FastGene® Buffer IV:	100%
FastGene® FastCut Buffer:	100%

#### Note

- It is an isoschizomer of Xma I.
- Incubation, 37°C results in 20% activity.
- May exhibit star activity in FastGene® Buffer I, II, III.