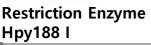


# **GFastGene**°





Cat.# FG-Hpy188I Size 1,000 units Conc. 10 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.

## Dilution buffer:

FastGene® Diluent A

#### **Heat Inactivation**

Hpy188 I can be inactivated at 65°C for 20 min.

#### Methylation sensitivity

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

#### **Prolonged incubation**

A minimum amount of enzyme required to digest 1  $\mu g$  substrate DNA for 16 hr; 1 U.

### Relative activity in FastGene® Buffers

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

#### Note

Its cleavage is blocked by *dam* methylation overlapping the recognition sequence.

Reaction condition of low salt, excess enzyme, excess glycerol (>5%) or high pH (>8.0) may result in star activity

#### Source: Helicobacter pylori 188

#### **Reaction conditions**

1X FastGene<sup>®</sup> Buffer IV 37°C 1X FastGene<sup>®</sup> 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  $\mu g$  pBR322 at 37°C for 1 hr in 50  $\mu l$  reaction mixtures.

#### Quality control

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

## Standard reaction condition

-	Normal	protocol
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Component	Final Conc.	Volume
Substrate DNA	1 µg	X µl
10X FastGene <sup>®</sup> Buffer IV	1 X	5 µl
Hpy188 I	10 unit	1 µl
Sterile water		up to 50 µl
$\rightarrow$ Incubate at 37°C for 1 hr		

- Fast protocol

Component	Final Conc.	Volume
Substrate DNA	1 µg	Xμl
10X FastGene® FastCut Buffer	1 X	5 µl
Нру188 І	10 unit	1 µl
Sterile water		up to 50 µl

 $\rightarrow$  Incubate at 37°C for 15 min

% We recommend 5-10 units of enzyme per  $\mu g$  DNA and 10-20 units for genomic DNA in a 1 h digest.