



# Restriction Enzyme Kpn2 I



<b>Cat.#</b> FG-Kpn2I	<b>Size</b> 500 units	<b>Conc.</b> 10 units/μl
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Store at -20°C

**Supplied with:** 10X FastGene® Buffer I (FG-REB1)  
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

Kpn2 I can be inactivated at 80°C for 20 min.

### Methylation sensitivity

*dam* methylation: Not sensitive

*dcm* methylation: Not sensitive

CpG methylation: Sensitive

### Relative activity in FastGene® Buffers

FastGene® Buffer I:	100%
FastGene® Buffer II:	25%
FastGene® Buffer III:	75%
FastGene® Buffer IV:	50%
FastGene® FastCut Buffer:	100%

### Note

It is an isoschizomer of Acc III and BspE I. Cleavage of mammalian genomic DNA is blocked by CpG methylation.

**Source:** *Klebsiella pneumoniae* RFL2

### Reaction conditions

1X FastGene® Buffer I, 55°C

1X FastGene® FastCut Buffer, 55°C

### FastGene® FastCut Buffer

FastGene® restriction enzyme can cut substrate DNA in 5-15 with FastGene® FastCut Buffer.

### 1X FastGene® Buffer I

10 mM Bis Tris propane-HCl (pH 7.0 at 25°C)

10 mM MgCl<sub>2</sub>

100 μg/ml BSA

### Unit definition

One unit is defined as the amount of enzyme required to digest 1 μg of λ DNA in 1 hour at 55°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 I	1 X	5 μl
Kpn2 I	10 unit	1 μl
Sterile water		up to 50 μl

→ Incubate at 55°C for 1 hr

- Fast protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X FastGene® FastCut Buffer	1 X	5 μl
Kpn2 I	10 unit	1 μl
Sterile water		up to 50 μl

→ Incubate at 55°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.