Acc I

Cat.#	Size	Conc.
R023S	1,000 units	4 units/μl
R023M	2,000 units	4 units/μl
R023L	5,000 units	4 units/μl
R023H	5,000 units	20 units/μl

Expire date:

Store at -20℃

Recognition & cleavage sequence

```
5’ … G T|M K A C … 3’
3’ … C A K M|T G … 5’
```

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Source
Acinetobacter calcoaceticus

Unit definition
One unit is defined as the amount of enzyme required for complete digestion of 1 μg bacteriophage λ DNA at 37℃for 1 hr in a 50 μl reaction mixture.

Quality control
- Unit definition assay
- Overdigestion assay
- Endonuclease assay
- Extreme purity assay

Product component
- Acc I
- 10X EzBuffer IV
- 10X FastCut Buffer
- 6X DNA loading Buffer
- Sterile water

Thermal inactivation

Temperature	Time
80℃	20 min

Methylation effect

Methylation	*dam*	*dcm*	CpG
Cleavage	Cleavage	Cleavage	Conditional

Enzyme activity in EzBuffers

I	II	III	IV	FastCut
75%	100%	100%	100%	100%

Note
Acc I needs at least 13 bases added to each side of the recognition site for effective cleavage. Cleavage of mammalian genomic DNA is prevented by CpG methylation overlapping its recognition sequence. Both M13 and pUC19 contain a single Acc I site.

Standard reaction condition
- Normal protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X EzBuffer IV	1 X	5 μl
Acc I		Substrate dependent
Sterile water		up to 50 μl

→ Incubate at 37℃ for 1 hr

- Fast protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X FastCut Buffer	1 X	5 μl
Acc I	4 unit	1 μl
Sterile water		up to 50 μl

→ Incubate at 37℃ for 15 min

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

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Rev.200310

Acc I

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ISO9001 ISO14001 ISO13485

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- Fast protocol

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Acc I	4 unit	1 μl
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→ Incubate at 37℃ for 15 min

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