Aat II

Cat.#	Size	Conc.
R026S	500 units	10 units/μl
R026M	1,000 units	10 units/μl
R026L	2,500 units	10 units/μl
R026H	2,500 units	50 units/μl

Expire date:

Store at -20℃

Recognition & cleavage sequence

5' … G A C G T|C … 3'
3' … C|T G C A G … 5'

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

ISO9001 ISO14001 ISO13485

Source
Acetobacter aceti

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
- Aat II
- 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	No Cleavage

Enzyme activity in EzBuffers

I	II	III	IV	FastCut
0%	25%	25%	100%	100%

Note
More (3-5 fold) enzyme is required to cleave supercoiled DNA than lambda DNA. The decrease in activity occurs if buffer pH is below 7.5 or above 8.0 at 25℃. Cleavage of mammalian genomic DNA is prevented by CpG methylation

Standard reaction condition
- Normal protocol

Component	Final Conc.	Volume
Substrate DNA	1 μg	X μl
10X EzBuffer IV	1 X	5 μl
Aat II		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
Aat II	10 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.190801

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