① Aat II

② GACGT↓C
C↑TGCAG

CERTIFICATE OF ANALYSIS

Cat. #	Package	Concentration
③ E287m	④ 250Units	⑤ 10U/µl

Lot	Exp	Store
1807025	07/19	-20°C

B	G	O	W	Y	ROSE
10-25	25-50	10-25	25-50	**100**	50

37°C | 65°C 20 | Y | λ | Rm

Source : An E.coli strain that carries the cloned Aat II gene from Acetobacter aceti

⑥ **Supplied with** : 1ml of 10 X Buffer Y

Reaction Conditions : 1 X Buffer Y, Incubate at 37°C.

Heat Inactivation : Enzyme is inactivated by incubation at 65°C for 20 minutes.

Unit Definition : One unit is defined as the amount of enzyme required to digest 1 µg of

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Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.

Quality Control Assays

Ligation : After 10-fold overdigestion with Aat II, approximately 90% of the DNA fragments can be ligated with T4 DNA Ligase and recut.

16-Hour Incubation : A 50 µl reaction containing 1 µg of DNA and 10 Units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour. Conditions of high enzyme concentration may result in star activity.

Oligonucleotide Asaay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 10 units of restriction endonuclease for 3 hours.

Enzyme Storage buffer: 10 mM Tris-HCl (pH 7.5); 50 mM NaCl; 0.1 mM EDTA; 200 µg/ml BSA; 1 mM DTT; and 50% glycerol.

Buffer B 10 mM Tris-HCl (pH 7.6 at 25°C); 10 mM $MgCl_2$; 1 mM DTT.

Buffer G 10 mM Tris-HCl (pH 7.6 at 25°C); 10 mM $MgCl_2$; 50 mM NaCl; 1 mM DTT.

Buffer O 50 mM Tris-HCl (pH 7.6 at 25°C); 10 mM $MgCl_2$; 100 mM NaCl; 1 mM DTT.

Buffer W 10 mM Tris-HCl (pH 8.5 at 25°C); 10 mM $MgCl_2$; 100 mM NaCl; 1 mM DTT.

Buffer Y 33 mM Tris-acetate (pH 7.9 at 25°C); 10 mM magnesium acetate; 66 mM potassium acetate; 1 mM DTT.