Restriction Endonuclease

Abs I

E535

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50 u **Lot: 19**
1000 u/ml **Store at -20°C**

Recognition Sequence:

5'… CC↓TCGAGG …3'
3'… GGAGCT↑CC …5'

Sourse: ***Arthrobacter species*** **7M06**

Supplied in:
10 mM Tris-HCl (pH 7.5); 50 mM KCl;
0,1 mM EDTA; 200 μg/ml BSA;
7 mM 2-mercaptoethanol; 0.05% Triton X-100;
50% glycerol.

Reaction Conditions:
1×SEBuffer **Abs I.**
Incubate at **37°C**.

Warranty period for the enzyme storage at-20˚C is two years from the date of the last assay indicated on the enzyme vial.

1×SEBuffer Abs I (pH 9.0 @ 25ºC)
10 mM Tris-HCl 50 mM KCl
10 mM $MgCl_2$ 1 mM DTT

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 μg of pUC19SE/DriI in 1 hour at 37°C in a total reaction volume of 50 μl.

Quality Control Assays

Ligation: After 2-fold overdigestion with Abs I, ~90% of DNA fragments can be ligated with T4 DNA Ligase and recut.

16-Hour Incubation:
A 50 μl reaction containing 1μg of pUC19SE/DriI and 2 units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour.
A long incubation time may result in star activity.

Oligonucleotide Assay:
No detectable degradation of a single- and double-stranded oligonucleotide was observed after incubation with 1 units of enzyme for 3 hours.

Enzyme Properties

Activity in SEBuffers:
SEBuffer B 75-100%
SEBuffer G 10-25%
SEBuffer O 0%
SEBuffer W 50-75%
SEBuffer Y 0-10%
SEBuffer ROSE 50%

When using a buffer other than the optimal (suppied) SEBuffer, it may be necessary to add more enzyme to achieve complete digestion.

Heat Inactivation:
Yes (65°C for 20 minutes)

Reagents Supplied with Enzyme:
10×SEBuffer Abs I

CERTIFICATE OF ANALYSIS