Restriction Endonuclease

Ags I

E573

SibEnzyme Ltd., Russia
Ph: +7 383 333 4991
Fax :+7 383 333 6853
info@sibenzyme.com
www.sibenzyme.com

200 u **Lot: 4**
5000 u/ml **Store at -20°C**

Recognition Sequence:

5'… TTS↓AA … 3'
3'… AA↑STT …5'

Sourse: ***Agrococcus species 25***

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

Reaction Conditions:
1×SEBuffer **Y+BSA**
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 Y (pH 7.9 @ 25ºC)
33 mM Tris-Ac 66 mM KAc
10 mM MgAc 1 mM DTT

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

Concentrated enzymes are diluted to approximately 1000 units/ml with the buffer A [10 mM Tris-HCl (pH 7.6); 50 mM KCl; 0.1 mM EDTA; 1 mM DTT; 200 μg/ml BSA; 50% glycerol] before determining their activity.

To obtain 100% activity, BSA should be added to the 1× reaction mix to a final concentration of 100 μg/ml.

Quality Control Assays

Ligation: After 5-fold overdigestion with Ags I, >90% of λ DNA fragments can be ligated with T4 DNA Ligase and recut.

16-Hour Incubation:
A 50 μl reaction containing 1μg of λ 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.

Oligonucleotide Assay:
No detectable degradation of a single- and double-stranded oligonucleotide was observed after incubation with 5 units of enzyme for 3 hours.

Enzyme Properties

Activity in SEBuffers:
SEBuffer B 75-100%
SEBuffer G 50-75%
SEBuffer O 10-25%
SEBuffer W 10-25**%**
SEBuffer Y **100%**
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 Y, BSA (10 mg/ml)

CERTIFICATE OF ANALYSIS