Restriction Endonuclease

Fai I

E551

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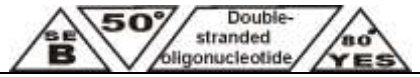

50 u **Lot: 20**

1000 u/ml **Store at -20°C**

Recognition Sequence:

5'... YA↓TR ...3'

3'... RT↑AY ...5'

Sourse: ***Flavobacterium aquatile B15***

Fail cleaves 4 expected recognition sites as well as several other sites with a weaker activity. In the case of long incubation with Fail DNA can be digested to small oligos.

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 **B**.
Incubate at **50°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 B (pH 7.6 @ 25ºC)
10 mM Tris-HCl 10 mM $MgCl_2$ 1 mM DTT

Unit Definition:
One unit is defined as the amount of enzyme required to cleave 1 pmol of the double-stranded oligonucleotide with the following structure

5'-CGAGTTCA^TAGCTGGGCCCAAC-3'
3'-GCTCAAGT^ATCGACCCGGGTTG-5'

in 1 hour at 50°C in a total reaction volume of 20 μl.
http://science.sibenzyme.com/article8_article_51_1.phtml

Quality Control Assays

Ligation: After 3-fold overdigestion with Fai I, ~50% of pUC19 DNA fragments can be ligated with T4 DNA Ligase and recut.

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

Enzyme Properties

Activity in SEBuffers:

SEBuffer B	**100%**
SEBuffer G	50-75%
SEBuffer O	10-25%
SEBuffer W	25-50%
SEBuffer Y	25-50%
SEBuffer ROSE	100%

Heat Inactivation:
Yes (80°C for 20 minutes)

Reagents Supplied with Enzyme:
10×SEBuffer B

CERTIFICATE OF ANALYSIS