

Restriction  
Endonuclease



## CERTIFICATE OF ANALYSIS

# FauND I



Recognition  
Sequence:

CA↓TATG  
GTAT↑AC

L

### E010

5,000 units  
10,000 u/ml

Lot: 43

Exp: 09/19

Store at -20C

SE-Buffers	B	G	O	W	Y	ROSE
%Activity	50-75	75-100	10-25	50-75	100	100



Source: An *E.coli* strain that carries the cloned FauND I gene from *Flavobacterium aquatili* ND.

Supplied in:

10 mM Tris-HCl (pH 7.5), 50 mM KCl, 0.1 mM EDTA, 200 µg/ml BSA, 1 mM DTT, 50% glycerol.

Reaction Conditions:

1x SE-Buffer Y, BSA (100 µg/ml). Incubate at 37° C.

1X SE-Buffer Y (pH 7.9@ 25° C):

33 mM Tris-Ac    66 mM KAc

10 mM MgAc    1 mM DTT

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 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, 200 µg/ml BSA, 1 mM DTT, 50% glycerol] before determining their activity. To obtain 100% activity, BSA should be added to the 1x reaction mix to final concentration of 100 µg/ml.

Quality Control Assays

Ligation: After 10-fold overdigestion with FauND I, approximately 80% of the DNA fragments can be ligated with T4 DNA Ligase and recut. In the presence of 10% PEG ligation is better.

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.

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

Note: Sensitive to impurities present in some DNA preparations. For example, DNA purified by standard miniprep procedures is cleaved at lower rates.

Enzyme Properties

When using a buffer other than the optimal (supplied) SE-Buffer, it may be necessary to add more enzyme to achieve complete digestion.

Reagents Supplied with Enzyme:

10X SE-Buffer Y, BSA (10 mg/ml)

Certified for human genome studies:

[http:// science.sibenzyme.com/article8\\_article\\_31\\_1.phtml](http://science.sibenzyme.com/article8_article_31_1.phtml)

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