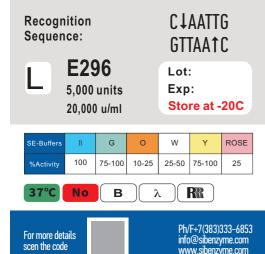




Mfe I



CERTIFICATE OF ANALYSIS

<u>Source</u>: An E.coli strain that carries the cloned Mfe I gene from Mycoplasma fermentans.

Supplied in:

10 mM Tris-HCl (pH 7.6), 50 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 200 μg/ml BSA; 50% glycerol.

Reaction Conditions:

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

$\underline{\text{1X SE-Buffer G (pH 7.6 @ 25°C):}}$

10 mM Tris-HCl 10 mM MgCl₂ 1 mM DTT

Heat Inactivation:

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

<u>Unit Definition</u>:One unit is defined as the amount of enzyme required to digest 1 μ g of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 μ l. Conditions of high enzyme concentration may result in star activity.

To obtain 100% activity, BSA should be added to the 1 x reaction mix to a final concentration of 100 μ g/ml. Do not use BSA for long incubation.

Quality Control Assays

<u>Ligation</u>: After 20-fold overdigestion with Mfe I, \sim 90% of the DNA fragments can be ligated with T4 DNA Ligase and recut.

16-Hour Incubation: A 50 μl reaction containing in 1 μg of DNA and 20 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.

Enzyme Properties:

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

Reagents Supplied with Enzyme: 10X SE Buffer B. BSA (10 mg/ml).