AleI



1-800-632-7799 info@neb.com www.neb.com



R0634S ➤ R1 NB4 372 Nbb



500 units 10,000 U/ml Lot: 0101208 RECOMBINANT Store at -70°C Exp: 8/14

Recognition Site:

5'... CACNNNNGTG...3' 3′... G T G N N N N C A C ... 5′

Source: An E. coli strain that carries the cloned Alel gene Aureobacterium liquefaciens (S.K. Degtyarev)

More Units. Now Recombinant

Supplied in: 300 mM NaCl, 20 mM Tris-HCl (pH 7.5), 0.1 mM EDTA, 1 mM dithiothreitol, 200 µg/ml BSA and 50% glycerol.

Reagents Supplied with Enzyme: 10X NEBuffer 4.

Reaction Conditions: 1X NEBuffer 4. Incubate at 37°C.

1X NEBuffer 4:

50 mM potassium acetate 20 mM Tris acetate 10 mM magnesium acetate 1 mM DTT pH 7.9 @ 25°C

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

Diluent Compatibility: Diluent Buffer A 50 mM KCl, 10 mM Tris-HCl, 0.1 mM EDTA, 1 mM dithiothreitol, 200 µg/ml BSA and 50% glycerol (pH 7.4 @ 25°C)

Quality Control Assays

Ligation: After 10-fold overdigestion with Alel. > 95% of the DNA fragments can be ligated with T4 DNA Ligase (at a 5' termini concentration of 1-2 µM) at 16°C. Of these ligated fragments, > 95% can be recut.

16-Hour Incubation: A 50 ul reaction containing 1 µg of DNA and 240 units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour with 1 unit of enzyme.

Exonuclease Activity: Incubation of 120 units of enzyme with 1 µg sonicated [3H] DNA (105 cpm/µg) for 4 hours at 37°C in 50 ul reaction buffer released < 0.1% radioactivity.

Endonuclease Activity: Incubation of 60 units of enzyme with 1 ug pBR322 DNA for 4 hours at 37°C in 50 µl reaction buffer resulted in < 10% conversion to RF II.

Enzyme Properties

Activity in NEBuffers:

NEBuffer 1 10% NEBuffer 2 25% NEBuffer 3 10% NEBuffer 4 100%

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

Survival in a Reaction: Intermediate activity. Suitable for extended digestion, but < 8 hours.

Heat Inactivation: 65°C for 20 minutes.

Note: Alel is an isoschizomer of Olil.

Cleavage of mammalian genomic DNA is impaired by some combinations of overlapping CpG methylation.

Storage at -70°C is recommended for periods longer than 30 days.

CERTIFICATE OF ANALYSIS

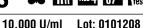
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