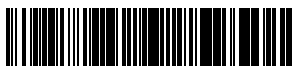


Bccl



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



R0704S 002120914091

R0704S



1,000 units 10,000 U/ml Lot: 0021209

RECOMBINANT Store at -20°C Exp: 9/14

Recognition Site:

5'... C C A T C (N)₄... 3'
3'... G G T A G (N)₅... 5'

Source: An *E. coli* strain that carries the cloned Bccl gene from *Bacteroides caccae* (ATCC 43185)

Supplied in: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM dithiothreitol, 200 µg/ml BSA and 50% glycerol.

Reagents Supplied with Enzyme:

10X NEBuffer 1, 100X BSA

Reaction Conditions:

1X NEBuffer 1, supplemented with 100 µg/ml BSA. Incubate at 37°C.

1X NEBuffer 1:

10 mM Bis Tris Propane-HCl
10 mM MgCl₂
1 mM DTT
pH 7.0 @ 25°C

Unit Definition:

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

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)

Heat Inactivation: 65°C for 20 minutes.

Quality Control Assays

Ligation: After 3-fold overdigestion with Bccl, approximately 50% 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 µl reaction containing 1 µg of Adenovirus-2 DNA and 5 units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour with 10 units of enzyme.

Exonuclease Activity: Incubation of 60 units of enzyme with 1 µg sonicated [³H] DNA (10⁵ cpm/µg) for 4 hours at 37°C in 50 µl reaction buffer released < 0.1 radioactivity.

Enzyme Properties

Activity in NEBuffers:

NEBuffer 1	100%
NEBuffer 2	50%
NEBuffer 3	10%
NEBuffer 4	50%

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.

Plasmid Cleavage: Number of units required to cleave 1 µg of supercoiled plasmid DNA in one hour: pNEB193 = 2 units.

Note: Not sensitive to *dam*, *dcm* or mammalian CpG methylation.

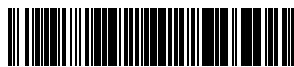
= Time-Saver™ Qualified (See www.neb.com for details).

CERTIFICATE OF ANALYSIS

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