

BaeGI



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



R0708S



500 units **Lot: 0011205** **Exp: 5/14**

10,000 U/ml **Store at -20°C**

Recognition Site:

5'... G K G C M[▼]C ... 3'
3'... C[▲]M C G K G ... 5'

Single Letter Code: K = G or T, M = A or C

Source: *Bacillus aestuarii* GG790 (X. Pan)

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.

Reaction Conditions:

1X NEBuffer 1.
Incubate at 37°C.

1X NEBuffer 1:

10 mM Bis Tris Propane-HCl

10 mM MgCl₂

1 mM dithiothreitol

pH 7.0 @ 25°C

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.

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 5-fold overdigestion with BaeGI,
> 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 µl reaction containing
1 µg of λ DNA and 30 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 50 units of
enzyme with 1 µg sonicated [³H] DNA
(10⁵ cpm/µg) for 4 hours at 37°C in 50 µl reaction
buffer released < 1.0% radioactivity.

Enzyme Properties

Activity in NEBuffers:

NEBuffer 1	100%
NEBuffer 2	75%
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: A minimum of 0.5 unit
is required to digest 1 µg of substrate DNA in
16 hours.

Heat Inactivation: 50 units of enzyme were
inactivated by incubation at 65°C for 20 minutes.

Note: BaeGI is an isoschizomer of Bme1580I.

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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