HinP1I

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

R0124S 020120814081

R0124S

2,000 units **10,000 U/ml** **Lot: 0201208**
RECOMBINANT Store at –20°C **Exp: 8/14**

Recognition Site:

5′. . . G▼C G C . . . 3′
3′. . . C G C▲G . . . 5′

Source: An *E. coli* strain that carries the cloned HinP1I gene from *Haemophilus influenzae* P_1 (S. Shen)

New Reaction Buffer

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 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 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 10-fold overdigestion with HinP1I, > 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 DNA and 100 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 100 units of enzyme with 1 µg sonicated ^{3}H DNA (10^5 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	100%
NEBuffer 3	100%
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: A minimum of 0.25 unit is required to digest 1 µg of substrate DNA in 16 hours.

Heat Inactivation: 100 units of enzyme were inactivated by incubation at 65°C for 20 minutes.

Notes: HinP1I is an isoschizomer of HhaI.

HinP1I produces a 5′ extension, whereas HhaI produces a 3′ extension. The 5′ extension can be efficiently ligated into the AccI site of M13 and pUC cloning vectors.

Cleavage of mammalian genomic DNA is blocked by CpG methylation.

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

CERTIFICATE OF ANALYSIS

HinP1I
1-800-632-7799
info@neb.com
www.neb.com
R0124S 020120814081
R0124S
2,000 units 10,000 U/ml Lot: 0201208
RECOMBINANT Store at –20°C Exp: 8/14
Recognition Site:
5′. . . G▼C G C . . . 3′
3′. . . C G C▲G . . . 5′
Source: An E. coli strain that carries the cloned HinP1I gene from Haemophilus influenzae P1 (S. Shen)
New Reaction Buffer
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 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 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 10-fold overdigestion with HinP1I, > 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 DNA and 100 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 100 units of enzyme with 1 µg sonicated 3H DNA (10^5 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 2 100%
NEBuffer 3 100%
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: A minimum of 0.25 unit is required to digest 1 µg of substrate DNA in 16 hours.
Heat Inactivation: 100 units of enzyme were inactivated by incubation at 65°C for 20 minutes.
Notes: HinP1I is an isoschizomer of HhaI.
HinP1I produces a 5′ extension, whereas HhaI produces a 3′ extension. The 5′ extension can be efficiently ligated into the AccI site of M13 and pUC cloning vectors.
Cleavage of mammalian genomic DNA is blocked by CpG methylation.
= Time-Saver™ Qualified (See www.neb.com for details).
CERTIFICATE OF ANALYSIS