

NEBNext® dsDNA
Fragmentase®
Reaction Buffer v2



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



B0349S 001140616061

B0349S

6 x 1.0 ml (6.0 ml) rxn buffer Lot: 0011406

Store at -20°C Exp: 6/16

Description: New England Biolabs supplies a 10X reaction buffer with all of its enzymes. At a 1X concentration this reaction buffer assures optimal activity of the enzyme.

1X NEBNext dsDNA Fragmentase

Reaction Buffer v2:

20 mM Tris-HCl
15 mM MgCl₂
50 mM NaCl
0.15% Triton X-100
0.1 mg/ml BSA
pH 7.5 @ 25°C

NEBNext® dsDNA
Fragmentase®
Reaction Buffer v2



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



B0349S 001140616061

B0349S

6 x 1.0 ml (6.0 ml) rxn buffer Lot: 0011406

Store at -20°C Exp: 6/16

Description: New England Biolabs supplies a 10X reaction buffer with all of its enzymes. At a 1X concentration this reaction buffer assures optimal activity of the enzyme.

1X NEBNext dsDNA Fragmentase

Reaction Buffer v2:

20 mM Tris-HCl
15 mM MgCl₂
50 mM NaCl
0.15% Triton X-100
0.1 mg/ml BSA
pH 7.5 @ 25°C

Quality Control Assay

16-Hour Incubation: A 50 µl reaction containing this reaction buffer at a 1X concentration and 1 µg of HaeIII digested φX174 RF I DNA incubated for 16 hours resulted in no detectable non-specific nuclease degradation.

Endonuclease Activity: Incubation of this reaction buffer at a 1X concentration with 1 µg φX174 RF I DNA for 4 hours at 37°C in 50 µl reactions resulted in less than 5% conversion to RF II.

Protease Assay: Incubation of at least 1X NEBNext dsDNA Fragmentase Reaction Buffer v2 with 0.2 nmol of a standardized mixture of proteins, for 20 hours at 37°C, resulted in no proteolytic activity detected by SDS-PAGE.

Phosphatase Assay: Incubation of 10 µl of at least 1X NEBNext dsDNA Fragmentase Reaction Buffer v2 in protein phosphatase assay buffer (1 M diethanolamine @ pH 9.8 and 0.5 mM MgCl₂) containing 2.5 mM *p*-nitrophenyl phosphate at 37°C for 4 hours yields no detectable *p*-nitrophenylene anion as determined by spectrophotometric analysis at 405 nm.

Quality Control Assay

16-Hour Incubation: A 50 µl reaction containing this reaction buffer at a 1X concentration and 1 µg of HaeIII digested φX174 RF I DNA incubated for 16 hours resulted in no detectable non-specific nuclease degradation.

Endonuclease Activity: Incubation of this reaction buffer at a 1X concentration with 1 µg φX174 RF I DNA for 4 hours at 37°C in 50 µl reactions resulted in less than 5% conversion to RF II.

Protease Assay: Incubation of at least 1X NEBNext dsDNA Fragmentase Reaction Buffer v2 with 0.2 nmol of a standardized mixture of proteins, for 20 hours at 37°C, resulted in no proteolytic activity detected by SDS-PAGE.

Phosphatase Assay: Incubation of 10 µl of at least 1X NEBNext dsDNA Fragmentase Reaction Buffer v2 in protein phosphatase assay buffer (1 M diethanolamine @ pH 9.8 and 0.5 mM MgCl₂) containing 2.5 mM *p*-nitrophenyl phosphate at 37°C for 4 hours yields no detectable *p*-nitrophenylene anion as determined by spectrophotometric analysis at 405 nm.



FRAGMENTASE®, NEBNEXT® and NEW ENGLAND BIOLABS® are registered trademarks of New England Biolabs, Inc.

CERTIFICATE OF ANALYSIS



FRAGMENTASE®, NEBNEXT® and NEW ENGLAND BIOLABS® are registered trademarks of New England Biolabs, Inc.

CERTIFICATE OF ANALYSIS