

NEBNext®  
Quick Ligation  
Reaction Buffer



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



B6058S 010150317031

**B6058S**

**2 x 1.0 ml (2 ml) Lot: 0101503**  
**Store at -20°C Exp: 3/17**

**Description:** New England Biolabs supplies a 5X reaction buffer for use with Quick T4 DNA Ligase. At a 1X concentration this reaction buffer assures optimal activity of the enzyme.

**1X NEBNext Quick Ligation Reaction Buffer:**

66 mM Tris-HCl  
10 mM MgCl<sub>2</sub>  
1 mM DTT  
1 mM ATP  
6% Polyethylene glycol (PEG 6000)  
pH 7.6 @ 25°C

**Quality Control Assay**

**16-Hour Incubation:** 50 µl reactions containing this reaction buffer at 1X concentration and 1 µg of HindIII digested Lambda DNA incubated for 16 hours at 37°C results in no detectable non-specific nuclease degradation as determined by agarose gel electrophoresis. 50 µl reactions containing this reaction buffer at 1X concentration and 1 µg T3 DNA incubated for 16 hours at 37°C also results in no detectable non-specific nuclease degradation as determined by agarose gel electrophoresis.

**Endonuclease Activity:** Incubation of this reaction buffer at a 1X concentration with 1 µg of φX174 RF I DNA for 4 hours at 37°C in 50 µl reactions results in less than 10% conversion to RF II as determined by agarose gel electrophoresis.

**RNase Activity:** Incubation of this reaction buffer at 1X concentration with 40 ng of a FAM-labeled RNA transcript for 16 hours at 37°C results in no detectable RNase activity as determined by polyacrylamide gel electrophoresis.

**Phosphatase Activity:** Incubation of this reaction buffer at a 1X concentration in protein phosphatase assay buffer (1 M diethanolamine @ pH 9.8 and 0.5 mM MgCl<sub>2</sub>) 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.

CERTIFICATE OF ANALYSIS

NEBNext®  
Quick Ligation  
Reaction Buffer



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



B6058S 010150317031

**B6058S**

**2 x 1.0 ml (2 ml) Lot: 0101503**  
**Store at -20°C Exp: 3/17**

**Description:** New England Biolabs supplies a 5X reaction buffer for use with Quick T4 DNA Ligase. At a 1X concentration this reaction buffer assures optimal activity of the enzyme.

**1X NEBNext Quick Ligation Reaction Buffer:**

66 mM Tris-HCl  
10 mM MgCl<sub>2</sub>  
1 mM DTT  
1 mM ATP  
6% Polyethylene glycol (PEG 6000)  
pH 7.6 @ 25°C

**Quality Control Assay**

**16-Hour Incubation:** 50 µl reactions containing this reaction buffer at 1X concentration and 1 µg of HindIII digested Lambda DNA incubated for 16 hours at 37°C results in no detectable non-specific nuclease degradation as determined by agarose gel electrophoresis. 50 µl reactions containing this reaction buffer at 1X concentration and 1 µg T3 DNA incubated for 16 hours at 37°C also results in no detectable non-specific nuclease degradation as determined by agarose gel electrophoresis.

**Endonuclease Activity:** Incubation of this reaction buffer at a 1X concentration with 1 µg of φX174 RF I DNA for 4 hours at 37°C in 50 µl reactions results in less than 10% conversion to RF II as determined by agarose gel electrophoresis.

**RNase Activity:** Incubation of this reaction buffer at 1X concentration with 40 ng of a FAM-labeled RNA transcript for 16 hours at 37°C results in no detectable RNase activity as determined by polyacrylamide gel electrophoresis.

**Phosphatase Activity:** Incubation of this reaction buffer at a 1X concentration in protein phosphatase assay buffer (1 M diethanolamine @ pH 9.8 and 0.5 mM MgCl<sub>2</sub>) 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.

CERTIFICATE OF ANALYSIS