

New England Biolabs Product Specification

Product Name: NEBNext[®] Quick Ligation Reaction Buffer
Catalog #: B6058S
Concentration: 5X Concentrate
Shelf Life: 24 months
Storage Temp: -20°C
Composition (1X): 66 mM Tris-HCl, 10 mM MgCl₂, 1 mM DTT, 1 mM ATP, 6 % PEG 6000, (pH 7.6 @ 25°C)
Specification Version: PS-B6058S v1.0
Effective Date: 12 Jul 2018

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking, Buffer) - A 50 µl reaction in 1X NEBNext[®] Quick Ligation Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X NEBNext[®] Quick Ligation Reaction Buffer containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Phosphatase Activity (pNPP, Buffer) - A 200 µl reaction in 1M Diethanolamine @ pH 9.8 and 0.5 mM MgCl₂ containing 2.5 mM *p*-Nitrophenyl Phosphate (pNPP) and a minimum of 20 µl NEBNext[®] Quick Ligation Reaction Buffer incubated for 4 hours at 37°C yields <0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.

RNase Activity (Buffer) - A 10 µl reaction in 1X NEBNext[®] Quick Ligation Reaction Buffer containing 40 ng of a 300 base single-stranded RNA is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis.



Date 12 Jul 2018

Derek Robinson
Director of Quality Control

