

## New England Biolabs Certificate of Analysis

**Product Name:** NEBNext® End Repair Reaction Buffer  
**Catalog Number:** B6052S  
**Concentration:** 10 X Concentrate  
**Packaging Lot Number:** 10063255  
**Expiration Date:** 07/2020  
**Storage Temperature:** -20°C  
**Specification Version:** PS-B6052S v1.0  
**Composition (1X):** 50 mM Tris-HCl, 10 mM MgCl<sub>2</sub>, 10 mM DTT, 1 mM ATP, 0.4 mM dATP, 0.4 mM dCTP, 0.4 mM dGTP, 0.4 mM dTTP, (pH 7.5 @ 25°C)

| NEBNext® End Repair Reaction Buffer Component List |                                     |            |                      |
|--|-------------------------------------|------------|----------------------|
| NEB Part Number                                    | Component Description               | Lot Number | Individual QC Result |
| B6052SVIAL   | NEBNext® End Repair Reaction Buffer | 10024917   | Pass                 |

| Assay Name/Specification   | Lot # 10063255 |
|--|----------------|
| <b>Phosphatase Activity (pNPP, Buffer)</b><br>A 200 µl reaction in 1M Diethanolamine @ pH 9.8 and 0.5 mM MgCl <sub>2</sub> containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 20 µl NEBNext® End Repair Reaction Buffer incubated for 4 hours at 37°C yields <0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis. | Pass           |
| <b>RNase Activity (Buffer)</b><br>A 10 µl reaction in 1X NEBNext® End Repair 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 using fluorescent detection.  | Pass           |
| <b>Endonuclease Activity (Nicking, Buffer)</b><br>A 50 µl reaction in 1X NEBNext® End Repair 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.  | Pass           |
| <b>Non-Specific DNase Activity (16 hour, Buffer)</b><br>A 50 µl reaction in 1X NEBNext® End Repair 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.                       | Pass           |

This product has been tested and shown to be in compliance with all specifications.



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Christine Sumner  
Production Scientist  
17 Dec 2019



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Michael Tonello  
Packaging Quality Control Inspector  
17 Dec 2019