


New England Biolabs Certificate of Analysis

Product Name: NEBNext® Second Strand Synthesis (dNTP-free) Reaction Buffer
Catalog Number: B6117S
Concentration: 10 X Concentrate
Lot Number: 10029486
Expiration Date: 10/2020
Storage Temperature: -20°C
Specification Version: PS-B6117S v1.0
Composition (1X): 20 mM Tris-HCl, 12 mM (NH₄)₂SO₄, 5 mM MgCl₂, 0.16 mM β-NAD, (pH 7.5 @ 25°C)

NEBNext® Second Strand Synthesis (dNTP-free) Reaction Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B6117SVIAL	NEBNext® Second Strand Synthesis (dNTP-free) Reaction Buffer	10028843	Pass

Assay Name/Specification	Lot # 10029486
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X NEBNext® Second Strand Synthesis (dNTP-free) 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
Non-Specific DNase Activity (16 hour, Buffer) A 50 µl reaction in 1X NEBNext® Second Strand Synthesis (dNTP-free) 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
Phosphatase Activity (pNPP, Buffer) A 200 µl reaction in 1M Diethanolamine @ pH 9.8 and 0.5 mM MgCl ₂ containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 20 µl NEBNext® Second Strand Synthesis (dNTP-free) Reaction Buffer incubated for 4 hours at 37°C yields <0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass
RNase Activity (Buffer) A 10 µl reaction in 1X NEBNext® Second Strand Synthesis (dNTP-free) 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

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



Melissa Arn
Production Scientist
13 Nov 2018



Michael Tonello
Packaging Quality Control Inspector
13 Nov 2018