

New England Biolabs Certificate of Analysis


Product Name: Isothermal Amplification Buffer
Catalog Number: B0537S
Concentration: 10 X Concentrate
Lot Number: 10036829
Expiration Date: 02/2022
Storage Temperature: -20°C
Specification Version: PS-B0537S v1.0
Composition (1X): 20 mM Tris-HCl, 50 mM KCl, 10 mM (NH₄)₂SO₄, 2 mM MgSO₄, 0.1 % Tween® 20, (pH 8.8 @ 25°C)

Isothermal Amplification Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B0537SVIAL	Isothermal Amplification Buffer	10035085	Pass

Assay Name/Specification	Lot # 10036829
RNase Activity Assay (4 Hour Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of Isothermal Amplification Buffer is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
qPCR DNA Contamination (E. coli Genomic, Buffer) A minimum of 1 µl of Isothermal Amplification Buffer is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	Pass
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 2X Isothermal Amplification 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 2X Isothermal Amplification 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

Assay Name/Specification	Lot # 10036829
<p>pH (buffers/solutions) The pH of 10X Isothermal Amplification Buffer is between pH 8.7 and 8.9 at 25°C.</p>	Pass
<p>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 40 µl Isothermal Amplification Buffer incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass

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



Doreen Duquette
Production Scientist
21 Feb 2019



Josh Hersey
Packaging Quality Control Inspector
22 Feb 2019