240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name: One Taq® Standard Reaction Buffer Pack

Catalog #: B9022S

 Concentration:
 5X Concentrate

 Lot #:
 0031708

 Assay Date:
 08/2017

 Expiration Date:
 8/2020

 Storage Temp:
 -20°C

Composition (1X): 20 mM Tris-HCl, 22 mM KCl, 22 mM NH₄Cl, 1.8 mM MgCl₂, 0.06 % IGEPAL® CA-630, 0.05 % Tween® 20, (pH

8.9 @ 25°C)

Specification Version: PS-B9022S v1.0 Effective Date: 03 Aug 2017

Assay Name/Specification (minimum release criteria)	Lot #0031708
Endonuclease Activity (Nicking, Buffer) - A 50 μl reaction in 2X One <i>Taq</i> ® Standard 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 2X One Taq ® Standard 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
PCR Amplification (5 kb Lambda DNA, Buffer) - A 25 μl reaction in One <i>Taq</i> ® Standard Reaction Buffer in the presence of 200 μM dNTPs and 0.2 μM primers containing 5 ng Lambda DNA with 0.625 units of One <i>Taq</i> ® DNA Polymerase for 25 cycles of PCR amplification results in the expected 5 kb product.	Pass
pH (buffers/solutions) - The pH of 5X One Taq® Standard Reaction Buffer is between pH 8.8 and 9.0 at 25°C.	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 <i>p</i> -Nitrophenyl Phosphate (pNPP) and a minimum of 80 µl One <i>Taq</i> ® Standard Reaction Buffer incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass







240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Assay Name/Specification (minimum release criteria)	Lot #0031708
qPCR DNA Contamination (<i>E. coli</i> Genomic, Buffer) - A minimum of 1 μ l of One Taq Standard Reaction Buffer is screened for the presence of <i>E. coli</i> genomic DNA using SYBR Green qPCR with primers specific for the <i>E. coli</i> 16S rRNA locus. Results are quantified using a standard curve generated from purified <i>E. coli</i> genomic DNA. The measured level of <i>E. coli</i> genomic DNA contamination is ≤ 1 <i>E. coli</i> genome.	Pass
RNase Activity (Extended Digestion) - A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μ l of One Taq ® Standard Reaction 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

Authorized by Lynne Apone 03 Aug 2017

nga.
ISO 9001
Registered
Quality





Inspected by
Tony Spear-Alfonso
08 Sep 2017