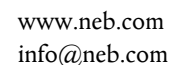


New England Biolabs Certificate of Analysis

Product Name: OneTaq[®] 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 OneTaq [®] 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 OneTaq [®] 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 OneTaq [®] 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 OneTaq [®] DNA Polymerase for 25 cycles of PCR amplification results in the expected 5 kb product.	Pass
pH (buffers/solutions) - The pH of 5X OneTaq [®] 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 p-Nitrophenyl Phosphate (pNPP) and a minimum of 80 µl OneTaq [®] Standard Reaction Buffer incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass



B9022S Lot: 0031708
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