

New England Biolabs Certificate of Analysis

Product Name: Hemo KlenTaq[®] Reaction Buffer Pack
Catalog #: B0332S
Concentration: 5X Concentrate
Lot #: 0031801
Assay Date: 01/2018
Expiration Date: 01/2021
Storage Temp: -20°C
Composition (1X): 60 mM Tricine, 5 mM (NH₄)₂SO₄, 3.5 mM MgCl₂, 6 % Glycerol, (pH 8.7 @ 25°C)
Specification Version: PS-B0332S v1.0
Effective Date: 08 Jan 2018

Assay Name/Specification (minimum release criteria)	Lot #0031801
Endonuclease Activity (Nicking, Buffer) - A 50 µl reaction in 2X Hemo KlenTaq [®] 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 Hemo KlenTaq [®] 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 (0.5 kb Whole Blood DNA, Buffer) - A 50 µl reaction in the presence of 200 µM dNTPs and 0.3 µM primers containing 10% whole blood treated with sodium heparin, sodium EDTA, potassium EDTA or sodium citrate with 4 µl Hemo KlenTaq [®] and 1X Hemo KlenTaq [®] Reaction Buffer for 35 cycles of PCR amplification results in the expected 0.5 kb product.	Pass
pH (buffers/solutions) - The pH of 5X Hemo KlenTaq [®] Reaction Buffer is between pH 8.6 and 8.8 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 Hemo KlenTaq [®] Reaction Buffer incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass



