

New England Biolabs Certificate of Analysis

Product Name: Hemo KlenTaq®
Catalog Number: M0332L
Unit Definition: N/A
Lot Number: 10045841
Expiration Date: 01/2021
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.5 % Tween® 20, 0.5 % IGEPAL® CA-630, 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0332S/L v1.0

Hemo KlenTaq® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0332LVIAL	Hemo KlenTaq®	10035053	Pass
B0332SVIAL	Hemo KlenTaq® Reaction Buffer	0031801	Pass

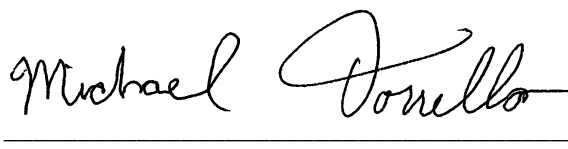
Assay Name/Specification	Lot # 10045841
qPCR DNA Contamination (E. coli Genomic) A minimum of 1 µl of Hemo KlenTaq® is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	Pass
RNase Activity (Extended 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 Hemo KlenTaq® 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
Single Stranded DNase Activity (FAM-Labeled Oligo) A 20 µl reaction in Hemo KlenTaq® Reaction Buffer containing a 10 nM solution of a fluorescent internal labeled oligonucleotide and a minimum of 8 µl of Hemo KlenTaq® incubated for 30 minutes at 37°C and 75°C yields <10% degradation as determined by capillary electrophoresis.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction	Pass

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<p>containing Lambda-HindIII DNA and a minimum of 1 µl of Hemo KlenTaq[®] incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	
<p>PCR Amplification (0.5 kb Whole Blood DNA) A 50 µl reaction in Hemo KlenTaq[®] Reaction Buffer 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 of Hemo KlenTaq[®] for 35 cycles of PCR amplification results in the expected 0.5 kb product.</p>	Pass
<p>Phosphatase Activity (pNPP) A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl₂ containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 2 µl Hemo KlenTaq[®] incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) Hemo KlenTaq[®] is ≥ 99% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>Endonuclease Activity (Nicking) A 50 µl reaction in Hemo KlenTaq[®] Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 8 µl of Hemo KlenTaq[®] incubated for 4 hours at 37°C and 75°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass

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



Christie Vazquez
Production Scientist
06 Mar 2019



Michael Tonello
Packaging Quality Control Inspector
31 May 2019