

New England Biolabs Certificate of Analysis

Product Name: Diluent B
Catalog #: B8002S
Concentration: 1X Concentrate
Lot #: 0011703
Assay Date: 03/2017
Expiration Date: 03/2020
Storage Temp: -20°C
Composition (1X): 300 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 500 µg/ml BSA, (pH 7.4 @ 25°C)
Specification Version: PS-B8002S v1.0
Effective Date: 15 May 2018

Assay Name/Specification (minimum release criteria)	Lot #0011703
Endonuclease Activity (Nicking) - A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Diluent B 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) - A 50 µl reaction in CutSmart® Buffer containing 1 µg of PhiX174-HaeIII DNA and a minimum of 10 µl of Diluent B incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
pH (buffers/solutions) - The pH of 1X Diluent B is between pH 7.3 and 7.5 at 25°C.	Pass
qPCR DNA Contamination (E. coli Genomic) - A minimum of 1 µl of Diluent B 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 Diluent B 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



Authorized by
Derek Robinson
15 May 2018



Inspected by
Tony Spear-Alfonso
30 Mar 2017

