

New England Biolabs Certificate of Analysis

Product Name: *Diluent B*
Catalog Number: *B8002S*
Concentration: *1 X Concentrate*
Packaging Lot Number: *10186316*
Expiration Date: *03/2026*
Storage Temperature: *-20°C*
Specification Version: *PS-B8002S v1.0*
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)*

Diluent B Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B8002SVIAL	Diluent B	10179957	Pass

Assay Name/Specification	Lot # 10186316
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
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
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	Pass

Assay Name/Specification	Lot # 10186316
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.	

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

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Nancy Considine
Production Scientist
30 Mar 2023



Michael Tonello
Packaging Quality Control Inspector
31 Mar 2023