

New England Biolabs Certificate of Analysis


Product Name: Diluent A
Catalog Number: B8001S
Concentration: 1 X Concentrate
Lot Number: 10053875
Expiration Date: 04/2022
Storage Temperature: -20°C
Specification Version: PS-B8001S v1.0
Composition (1X): 10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 µg/ml BSA , 50 % Glycerol, (pH 7.4 @ 25°C)

Diluent A Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B8001SVIAL	Diluent A	10042697	Pass

Assay Name/Specification	Lot # 10053875
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 A 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 A 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 A 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 A 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	Pass

Assay Name/Specification	Lot # 10053875
and a minimum of 1 µl of Diluent A 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.	

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



Doreen Duquette
Production Scientist
15 Apr 2019



Michael Tonello
Packaging Quality Control Inspector
13 Sep 2019