

## New England Biolabs Certificate of Analysis

**Product Name:** *Diluent C*  
**Catalog Number:** *B8003S*  
**Concentration:** *1 X Concentrate*  
**Packaging Lot Number:** *10122092*  
**Expiration Date:** *11/2024*  
**Storage Temperature:** *-20°C*  
**Specification Version:** *PS-B8003S v1.0*  
**Composition (1X):** *250 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.15 % Triton X-100, 200 µg/ml BSA, (pH 7.4 @ 25°C)*

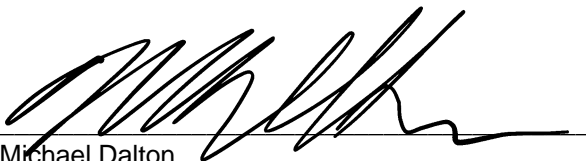
Diluent C Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B8003SVIAL	Diluent C	10119094	Pass

Assay Name/Specification	Lot # 10122092
<p><b>qPCR DNA Contamination (E. coli Genomic)</b>            A minimum of 1 µl of Diluent C 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.</p>	<b>Pass</b>
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Diluent C incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<b>Pass</b>
<p><b>RNase Activity (Extended Digestion)</b>            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 C is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	<b>Pass</b>
<p><b>pH (buffers/solutions)</b>            The pH of 1X Diluent C is between pH 7.3 and 7.5 at 25°C.</p>	<b>Pass</b>
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in CutSmart® Buffer containing 1 µg of PhiX174-HaeIII DNA and a</p>	<b>Pass</b>

Assay Name/Specification	Lot # 10122092
minimum of 10 µl of Diluent C incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

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Michael Dalton  
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10 Jan 2022



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10 Jan 2022