240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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www.neb.com
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New England Biolabs
Certificate of Analysis

Product Name:	*Diluent B (with rAlbumin)*
Catalog Number:	*B8533S*
Concentration:	*1 X Concentrate*
Packaging Lot Number:	*10240161*
Expiration Date:	*09/2026*
Storage Temperature:	*-20°C*
Specification Version:	*PS-B8533S v1.0*
Composition (1X):	*10 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 500 µg/ml rAlbumin, (pH 7.4 @ 25°C)*

Diluent B (with rAlbumin) Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
B8533SVIAL	Diluent B (with rAlbumin)	10240158	**Pass**

Assay Name/Specification	**Lot # 10240161**
Endonuclease Activity (Nicking) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Diluent B (with rAlbumin) 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 rCutSmart™ Buffer containing 1 µg of PhiX174-HaeIII DNA and a minimum of 10 µl of Diluent B (with rAlbumin) incubated for 16 hours at 37ºC 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 (with rAlbumin) 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 (with rAlbumin) is between pH 7.3 and 7.5 at 25°C.	**Pass**
qPCR DNA Contamination (E. coli Genomic)	**Pass**

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Assay Name/Specification	Lot # 10240161
A minimum of 1 µl of Diluent B (with rAlbumin) 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.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Nancy Considine
Production Scientist
03 May 2024

Josh Hersey
Packaging Quality Control Inspector
06 May 2024