240 County Road
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Tel 978-927-5054
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www.neb.com
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# New England Biolabs
# Certificate of Analysis

| | |
|---|---|
| *Product Name:* | *Diluent A (with rAlbumin)* |
| *Catalog Number:* | *B8532S* |
| *Concentration:* | *1 X Concentrate* |
| *Packaging Lot Number:* | *10267452* |
| *Expiration Date:* | *02/2027* |
| *Storage Temperature:* | *-20°C* |
| *Specification Version:* | *PS-B8532S v1.0* |
| *Composition (1X):* | *10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 µg/ml rAlbumin , 50 % Glycerol, (pH 7.4 @ 25°C)* |

| **Diluent A (with rAlbumin) Component List** | | | |
|---|---|---|---|
| **NEB Part Number** | **Component Description** | **Lot Number** | **Individual QC Result** |
| B8532SVIAL | Diluent A (with rAlbumin) | 10240157 | **Pass** |

| **Assay Name/Specification** | **Lot # 10267452** |
|---|---|
| **Endonuclease Activity (Nicking)**<br>A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Diluent A (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)**<br>A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of PhiX174-HaeIII DNA and a minimum of 10 µl of Diluent A (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)**<br>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 A (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)**<br>The pH of 1X Diluent A (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 # 10267452 |
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| A minimum of 1 µl of Diluent A (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.



Nancy Considine
Production Scientist
03 May 2024

Michael Tonello
Packaging Quality Control Inspector
06 Feb 2025