NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name:	*SARS-CoV-2 Positive Control (N gene)*
Catalog Number:	*N2117S*
Packaging Lot Number:	*10204059*
Expiration Date:	*03/2025*
Storage Temperature:	*-20°C*
Storage Conditions:	*Proprietary*
Specification Version:	*PS-N2117S v2.0*

SARS-CoV-2 Positive Control (N gene) Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
N2117SVIAL	SARS-CoV-2 Positive Control (N gene)	10184686	**Pass**

Assay Name/Specification	**Lot # 10204059**
A260/A280 Assay The ratio of UV absorption of SARS-CoV-2 Positive Control (N gene) at 260 and 280 nm is between 1.8 and 2.0.	**Pass**
DNA Concentration (qPCR, Control DNA) SARS-CoV-2 Positive Control (N gene) is quantified using qPCR. Triplicate, 20 µl reactions are run on SARS-CoV-2 Positive Control (N gene), six DNA standards, and no template controls for 40 cycles of PCR amplification, resulting in a standard curve with a calculated PCR efficiency of 90-110% and R2 value ≥0.99, and a ΔCq >10 between the sample and no template controls. For each new lot tested, the difference in Cq between the new lot and the standard 3 is <1 Cq. For each new lot tested, the difference in Cq between the new lot and the control lot is <1 Cq.	**Pass**
Functional Testing (qPCR, SARS-CoV-2) SARS-CoV-2 Positive Control (N gene) is functionally tested and compared to a previous lot in a multiplex qPCR assay that detects the 2019-nCoV_N1 target and the 2019-nCoV_N2 target. 2 µl of the SARS-CoV-2 Positive Control (N gene) is measured in triplicate in 20 µl reactions resulting in a ΔCq 10 between the sample and no template controls.	**Pass**
Non-Specific DNase Activity (DNA, 16 hour) A 50 µl reaction in 1X NEBuffer 2 containing 5 µg of SARS-CoV-2 Positive Control (N gene) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**

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Assay Name/Specification	Lot # 10204059
Restriction Digest (Linearization) A 50 µl reaction in CutSmart® Buffer containing 5 µg of SARS-CoV-2 Positive Control (N gene) and 20 units of XhoI incubated for 1 hour at 37°C produces > 95% linearization resulting in a single band of approximately 4021 bp as determined by agarose gel electrophoresis.	**Pass**

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.

Karen Moreira
Production Scientist
14 Apr 2023

Michael Tonello
Packaging Quality Control Inspector
13 Sep 2023