

## New England Biolabs Certificate of Analysis

Product Name: SARS-CoV-2 Positive Control (N gene)  
 Catalog Number: N2117S  
 Packaging Lot Number: 10160195  
 Expiration Date: 06/2024  
 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)	10151281	Pass

Assay Name/Specification	Lot # 10160195
<p><b>Non-Specific DNase Activity (DNA, 16 hour)</b>            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.</p>	Pass
<p><b>A260/A280 Assay</b>            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.</p>	Pass
<p><b>Restriction Digest (Linearization)</b>            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 &gt; 95% linearization resulting in a single band of approximately 4021 bp as determined by agarose gel electrophoresis.</p>	Pass
<p><b>DNA Concentration (qPCR, Control DNA)</b>            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 &gt;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 &lt;1 Cq. For each new lot tested, the difference in Cq between the new lot and the control lot is &lt;1 Cq.</p>	Pass
<b>Functional Testing (qPCR, SARS-CoV-2)</b>	Pass

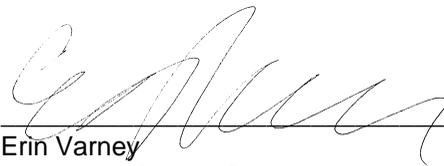
Assay Name/Specification	Lot # 10160195
SARS-CoV-2 Positive Control (N gene) is functionally tested and compared to a previous lot in a multiplex qPCR assay that detects the 2019-nCoV_N1 target and the 2019-nCoV_N2 target. 2 µl of the SARS-CoV-2 Positive Control (N gene) is measured in triplicate in 20 µl reactions resulting in a ΔCq 10 between the sample and no template controls.	

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

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