

## New England Biolabs Certificate of Analysis

**Product Name:** Gel Loading Dye Blue (6X)  
**Catalog Number:** B7021S  
**Packaging Lot Number:** 10070593  
**Expiration Date:** 02/2023  
**Storage Temperature:** 25°C  
**Specification Version:** PS-B7021S v2.0  
**Composition (1X):** 2.5% Ficoll®-400, 11 mM EDTA, 3.3 mM Tris-HCl, 0.017% SDS, 0.015% Bromophenol Blue, (pH 8.0 @ 25°C)

Gel Loading Dye Blue (6X) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7021SVIAL	Gel Loading Dye, Blue (6X)	10065744	Pass

Assay Name/Specification	Lot # 10070593
<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 Gel Loading Dye, Blue (6X) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 10 µl of Gel Loading Dye, Blue (6X) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of digested 1 kb Plus DNA Ladder DNA and a minimum of 10 µl of Gel Loading Dye, Blue (6X) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<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 Gel Loading Dye, Blue (6X) 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

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



Michael Dalton  
Production Scientist  
11 Jun 2020



Josh Hersey  
Packaging Quality Control Inspector  
11 Jun 2020