

## New England Biolabs Certificate of Analysis

**Product Name:** *Gel Loading Dye Blue (6X)*  
**Catalog Number:** *B7021S*  
**Packaging Lot Number:** *10232082*  
**Expiration Date:** *09/2026*  
**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)	10198647	Pass

Assay Name/Specification	Lot # 10232082
<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.	<b>Pass</b>
<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.	<b>Pass</b>
<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.	<b>Pass</b>
<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.	<b>Pass</b>


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](http://www.neb.com/trademarks) for additional information.



---

Nancy Considine  
Production Scientist  
13 Oct 2023



---

Michael Tonello  
Packaging Quality Control Inspector  
12 Mar 2024