

## New England Biolabs Certificate of Analysis

**Product Name:** Gel Loading Dye Orange (6X)  
**Catalog Number:** B7022S  
**Concentration:** 6 X Concentrate  
**Packaging Lot Number:** 10070939  
**Expiration Date:** 08/2022  
**Storage Temperature:** 25°C  
**Specification Version:** PS-B7022S v2.0  
**Composition (1X):** 2.5 % Ficoll® 400, 11 mM EDTA, 3.3 mM Tris-HCl, 0.017 % SDS, 0.15 % Orange G, (pH 8.0 @ 25°C)

Gel Loading Dye Orange (6X) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7022SVIAL	Gel Loading Dye, Orange (6X)	10050266	Pass

Assay Name/Specification	Lot # 10070939
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in 1X 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, Orange (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, Orange (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 1X NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µL of Gel Loading Dye, Orange (6X) is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using agarose gel electrophoresis.	Pass
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in 1X CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Gel Loading Dye, Orange (6X) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass

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



Michael Dalton  
Production Scientist  
03 Jun 2020



Michael Tonello  
Packaging Quality Control Inspector  
03 Jun 2020