

New England Biolabs Certificate of Analysis

Product Name: Gel Loading Dye Orange (6X)
Catalog Number: B7022S
Concentration: 6 X Concentrate
Packaging Lot Number: 10219530
Expiration Date: 11/2025
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)	10170731	Pass

Assay Name/Specification	Lot # 10219530
Endonuclease Activity (Nicking) 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
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in 1X CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ 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
Non-Specific DNase Activity (16 Hour) 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
RNase Activity (Extended Digestion) 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

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

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Production Scientist
17 Nov 2022



Michael Tonello
Packaging Quality Control Inspector
12 Dec 2023