NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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New England Biolabs
Certificate of Analysis

Product Name:	*Gel Loading Dye Orange (6X)*
Catalog Number:	*B7022S*
Concentration:	*6 X Concentrate*
Packaging Lot Number:	*10090306*
Expiration Date:	*03/2024*
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)	10090307	**Pass**

Assay Name/Specification	**Lot # 10090306**
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 37ºC. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using agarose gel electrophoresis.	**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 37ºC results in a DNA pattern free of detectable nuclease degradation 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 37ºC releases <0.1% of the total radioactivity.	**Pass**
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 37ºC results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**

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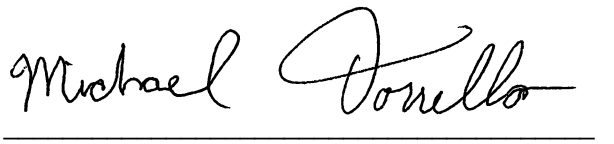
This product has been tested and shown to be in compliance with all specifications.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Michael Dalton
Production Scientist
01 Apr 2021



Michael Tonello
Packaging Quality Control Inspector
01 Apr 2021