NEW ENGLAND BioLabs Inc.

240 County Road
Ipswich, MA 01938-2723

Tel 978-927-5054
Fax 978-921-1350

www.neb.com
info@neb.com

New England Biolabs
Certificate of Analysis

Product Name:	*Gel Loading Dye, Orange (6X)*
Catalog #:	*B7022S*
Concentration:	*6X Concentrate*
Lot #:	*0051708*
Assay Date:	*08/2017*
Expiration Date:	*08/2020*
Storage Temp:	*25°C*
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)*
Specification Version:	*PS-B7022S v1.0*
Effective Date:	*30 Jan 2018*

Assay Name/Specification (minimum release criteria)	Lot #0051708
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 1X CutSmart® Buffer containing 1 µg of 2-log 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

Authorized by
Derek Robinson
30 Jan 2018

Inspected by
Tony Spear-Alfonso
07 Aug 2017

nqa. ISO 9001 Registered Quality Management

nqa. ISO 14001 Registered Environmental Management

nqa. ISO 13485 Registered Medical Devices

B7022S Lot: 0051708