NEW ENGLAND BioLabs Inc.
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240 County Road
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New England Biolabs
Certificate of Analysis

Product Name: *Blue Protein Loading Dye*
Catalog Number: *B7703S*
Packaging Lot Number: *10063027*
Expiration Date: *03/2022*
Storage Temperature: *-20°C*
Specification Version: *PS-B7703S v2.0*
Composition (1X): *187.5 mM Tris-HCl, 6 % (w/v) SDS, 30 % Glycerol, 0.03 % Bromophenol Blue, (pH 6.8 @ 25°C)*

Blue Protein Loading Dye Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
B7705SVIAL	30X Reducing Agent	10028849	**Pass**
B7703SVIAL	Blue Protein Loading Dye	10040439	**Pass**

Assay Name/Specification	Lot # 10063027
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of Blue Protein Loading Dye 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.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of 1 kb Plus DNA Ladder DNA and a minimum of 5 µl of Blue Protein Loading Dye incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Blue Protein Loading Dye incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**
Electrophoretic Pattern The components of the Blue Protein Loading Dye are tested to ensure the banding pattern of an NEB protein ladder on a 10-20% Tris-Glycine gel shows discrete, clearly identifiable bands at each size fragment of the marker when stained with Coomassie Blue at a concentration of 0.1%.	**Pass**

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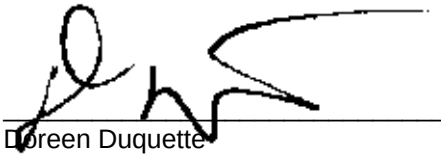
This product has been tested and shown to be in compliance with all specifications.



Doreen Duquette
Production Scientist
25 Mar 2019

Michael Tonello
Packaging Quality Control Inspector
10 Feb 2020