

New England Biolabs Product Specification

<i>Product Name:</i>	<i>Gel Loading Dye, Orange (6X)</i>
<i>Catalog #:</i>	<i>B7022S</i>
<i>Concentration:</i>	<i>6X Concentrate</i>
<i>Shelf Life:</i>	<i>36 months</i>
<i>Storage Temp:</i>	<i>25°C</i>
<i>Composition (1X):</i>	<i>2.5 % Ficoll® 400, 11 mM EDTA, 3.3 mM Tris-HCl, 0.017 % SDS, 0.15 % Orange G, (pH 8.0 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-B7022S v2.0</i>
<i>Effective Date:</i>	<i>09 May 2018</i>

Assay Name/Specification (minimum release criteria)

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.

Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in 1X CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] *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.

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.

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.



Date 09 May 2018

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Director of Quality Control

