

New England Biolabs Product Specification

<i>Product Name:</i>	<i>β-Agarase I</i>
<i>Catalog #:</i>	<i>M0392S/L</i>
<i>Concentration:</i>	<i>1,000 units/ml</i>
<i>Unit Definition:</i>	<i>One unit is defined as the amount of enzyme required to digest 200 μl of molten low melting point or NuSieve agarose to nonprecipitable neoagaro-oligosaccharides in 1 hour at 42°C</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>50 mM Bis-Tris-HCl, 1 mM EDTA, 50 % Glycerol, (pH 6.5 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0392S/L v1.0</i>
<i>Effective Date:</i>	<i>16 Jun 2016</i>

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 μl reaction in CutSmart® Buffer containing 1 μg of supercoiled PhiX174 DNA and a minimum of 1 unit of β-Agarase I 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 CutSmart® Buffer containing 1 μg of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 5 units of β-Agarase I 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 Lambda DNA and a minimum of 10 units of β-Agarase I incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Protein Purity Assay (SDS-PAGE) - β-Agarase I is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

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 β-Agarase I 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.



Date 16 Jun 2016

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Director of Quality Control

