

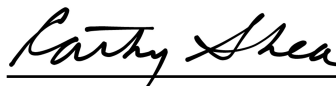
## New England Biolabs Certificate of Analysis

*Product Name:*  $\beta$ -Agarase I  
*Catalog #:* M0392S/L  
*Concentration:* 1,000 units/ml  
*Unit Definition:* One unit is defined as the amount of enzyme required to digest 200  $\mu$ l of molten low melting point or NuSieve agarose to nonprecipitable neoagaro-oligosaccharides in 1 hour at 42°C  
*Lot #:* 0281804  
*Assay Date:* 04/2018  
*Expiration Date:* 04/2020  
*Storage Temp:* -20°C  
*Storage Conditions:* 50 mM Bis-Tris-HCl, 1 mM EDTA, 50 % Glycerol, (pH 6.5 @ 25°C)  
*Specification Version:* PS-M0392S/L v1.0  
*Effective Date:* 06 Apr 2018

Assay Name/Specification (minimum release criteria)	Lot #0281804
<b>Endonuclease Activity (Nicking)</b> - A 50 $\mu$ l reaction in CutSmart <sup>®</sup> Buffer containing 1 $\mu$ g of supercoiled PhiX174 DNA and a minimum of 1 unit of $\beta$ -Agarase I incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	<b>Pass</b>
<b>Exonuclease Activity (Radioactivity Release)</b> - A 50 $\mu$ l reaction in CutSmart <sup>®</sup> Buffer containing 1 $\mu$ g of a mixture of single and double-stranded [ <sup>3</sup> H] <i>E. coli</i> DNA and a minimum of 5 units of $\beta$ -Agarase I incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 Hour)</b> - A 50 $\mu$ l reaction in CutSmart <sup>®</sup> Buffer containing 1 $\mu$ g of Lambda DNA and a minimum of 10 units of $\beta$ -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.	<b>Pass</b>
<b>Protein Purity Assay (SDS-PAGE)</b> - $\beta$ -Agarase I is $\geq$ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	<b>Pass</b>
<b>RNase Activity (Extended Digestion)</b> - A 10 $\mu$ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 $\mu$ l of $\beta$ -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.	<b>Pass</b>



Authorized by  
Derek Robinson  
06 Apr 2018



Inspected by  
Cathy Shea  
26 Apr 2018

