

## New England Biolabs Certificate of Analysis

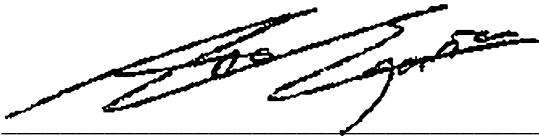
**Product Name:** *beta-Agarase I*  
**Catalog Number:** M0392S  
**Concentration:** 1,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 200  $\mu$ l of molten low melting point or NuSieve agarose to nonprecipitable neoagaro-oligosaccharides in 1 hour at 42°C  
**Lot Number:** 10030182  
**Expiration Date:** 04/2020  
**Storage Temperature:** -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

beta-Agarase I Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0392SVIAL	$\beta$ -Agarase I	0281804	Pass
B0392SVIAL	$\beta$ -Agarase I Reaction Buffer	0091803	Pass

Assay Name/Specification	Lot # 10030182
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 <math>\mu</math>l reaction in CutSmart® Buffer containing 1 <math>\mu</math>g of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 5 units of <math>\beta</math>-Agarase I incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 <math>\mu</math>l reaction in CutSmart® Buffer containing 1 <math>\mu</math>g of Lambda DNA and a minimum of 10 units of <math>\beta</math>-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.</p>	Pass
<p><b>Protein Purity Assay (SDS-PAGE)</b>  <math>\beta</math>-Agarase I is <math>\geq</math> 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b>            A 10 <math>\mu</math>l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 <math>\mu</math>l of <math>\beta</math>-Agarase I is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass

Assay Name/Specification	Lot # 10030182
<p><b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in CutSmart<sup>®</sup> 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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<p><b>Pass</b></p>

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



Ana Egana  
Production Scientist  
14 Dec 2018



Josh Hersey  
Packaging Quality Control Inspector  
14 Dec 2018