

## New England Biolabs Certificate of Analysis

**Product Name:** *EagI*  
**Catalog Number:** *R0505M*  
**Concentration:** *50,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*  
**Packaging Lot Number:** *10069598*  
**Expiration Date:** *12/2021*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *500 mM NaCl, 10 mM Tris-HCl (pH 8.0), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*  
**Specification Version:** *PS-R0505M v1.0*

EagI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0505M VIAL	EagI	10062749	Pass
B7203S VIAL	NEBuffer™ 3.1	10053975	Pass
B7024S VIAL	Gel Loading Dye, Purple (6X)	10065745	Pass

Assay Name/Specification	Lot # 10069598
<b>Blue-White Screening (Terminal Integrity)</b> A sample of Litmus38i vector linearized with a 10-fold excess of EagI, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 100 units of EagI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 20-fold over-digestion of pXba DNA with EagI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with EagI.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pXba DNA and a minimum of 100 Units of EagI incubated for 16 hours at 37°C results in a DNA pattern free of	Pass

Assay Name/Specification	Lot # 10069598
<p>detectable nuclease degradation as determined by agarose gel electrophoresis.</p> <p><b>Protein Purity Assay (SDS-PAGE)</b> Eagl is &gt;95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	<p><b>Pass</b></p>

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



Stephanie Cornelio  
Production Scientist  
19 Dec 2019



Michael Tonello  
Packaging Quality Control Inspector  
30 Mar 2020