

## New England Biolabs Certificate of Analysis

**Product Name:** *EagI*  
**Catalog Number:** *R0505L*  
**Concentration:** *10,000 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:** *10065277*  
**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-R0505S/L v1.0*

| EagI Component List |                              |            |                      |
|---------------------|------------------------------|------------|----------------------|
| NEB Part Number     | Component Description        | Lot Number | Individual QC Result |
| R0505LVIAL          | EagI                         | 10062748   | Pass                 |
| B7203SVIAL          | NEBuffer™ 3.1                | 10053974   | Pass                 |
| B7024SVIAL          | Gel Loading Dye, Purple (6X) | 10064412   | Pass                 |

| Assay Name/Specification                                                                                                                                                                                                                                                                                         | Lot # 10065277 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Blue-White Screening (Terminal Integrity)</b><br/>           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 &lt;1% white colonies.</p>                                          | Pass           |
| <p><b>Exonuclease Activity (Radioactivity Release)</b><br/>           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 &lt;0.1% of the total radioactivity.</p> | Pass           |
| <p><b>Ligation and Recutting (Terminal Integrity)</b><br/>           After a 20-fold over-digestion of pXba DNA with EagI, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with EagI.</p>                                   | Pass           |
| <p><b>Non-Specific DNase Activity (16 Hour)</b><br/>           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</p>                                                                               | Pass           |

| Assay Name/Specification                                                                                                                                                                                                       | Lot # 10065277     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <p>detectable nuclease degradation as determined by agarose gel electrophoresis.</p> <p><b>Protein Purity Assay (SDS-PAGE)</b><br/>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



Jay Minichiello  
Packaging Quality Control Inspector  
13 Feb 2020