New England Biolabs
Certificate of Analysis

Product Name: Eagl
Catalog #: R0505M
Concentration: 50,000 units/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.
Lot #: 0571803
Assay Date: 03/2018
Expiration Date: 3/2020
Storage Temp: -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
Effective Date: 08 Jun 2016

<table>
<thead>
<tr>
<th>Assay Name/Specification (minimum release criteria)</th>
<th>Lot #0571803</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue-White Screening (Terminal Integrity) - A sample of Litmus38i vector linearized with a 10-fold excess of Eagl, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in &lt;1% white colonies.</td>
<td>Pass</td>
</tr>
<tr>
<td>Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³²P] E. coli DNA and a minimum of 100 units of Eagl incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</td>
<td>Pass</td>
</tr>
<tr>
<td>Ligation and Recutting (Terminal Integrity) - After a 20-fold over-digestion of pXba DNA with Eagl, &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 Eagl.</td>
<td>Pass</td>
</tr>
<tr>
<td>Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pXba DNA and a minimum of 100 Units of Eagl incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</td>
<td>Pass</td>
</tr>
<tr>
<td>Protein Purity Assay (SDS-PAGE) - Eagl is &gt;95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</td>
<td>Pass</td>
</tr>
</tbody>
</table>

* The BSA in this product has been granted an EDQM “Certificate of Suitability” from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.

Authorized by
Derek Robinson
08 Jun 2016

Inspected by
Stephanie Cornelio
21 Mar 2018