

New England Biolabs Certificate of Analysis

Product Name: *EagI-HF[®]*
Catalog Number: *R3505S*
Concentration: *20,000 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: *10212201*
Expiration Date: *03/2025*
Storage Temperature: *-80°C*
Storage Conditions: *500 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)*
Specification Version: *PS-R3505S/L v3.0*

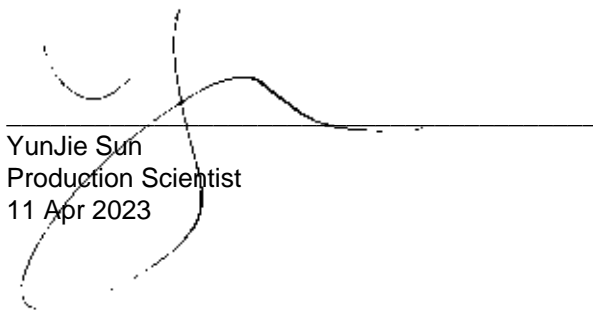
| EagI-HF[®] Component List | | | |
|---|-------------------------------|-------------------|-----------------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R3505SVIAL | EagI-HF [®] | 10184480 | Pass |
| B7024AVIAL | Gel Loading Dye, Purple (6X) | 10202499 | Pass |
| B6004SVIAL | rCutSmart [™] Buffer | 10204838 | Pass |

| Assay Name/Specification | Lot # 10212201 |
|--|-----------------------|
| Blue-White Screening (Terminal Integrity) A sample of Litmus38i vector linearized with a 10-fold excess of EagI-HF [™] , religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies. | Pass |
| Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart [™] Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 Units of EagI-HF [™] incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis. | Pass |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart [™] Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of EagI-HF [™] incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of pXba DNA with EagI-HF [™] , >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, | Pass |

| Assay Name/Specification | Lot # 10212201 |
|--|---|
| <p>>95% can be recut with Eagl-HF™.</p> <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 100 Units of Eagl-HF™ incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> <p>Protein Purity Assay (SDS-PAGE) Eagl-HF™ is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p> | <p style="text-align: center;">Pass</p> <p style="text-align: center;">Pass</p> |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



YunJie Sun
Production Scientist
11 Apr 2023



Josh Hersey
Packaging Quality Control Inspector
12 Oct 2023