

New England Biolabs Certificate of Analysis

Product Name: *EagI-HF*[®]
Catalog #: R3505M
Concentration: 100,000 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 #: 0051308
Assay Date: 08/2013
Expiration Date: 08/2015
Storage Temp: -20 °C
Storage Conditions: 500mM KCl, 10mM Tris-HCl (pH 7.5), 0.1mM EDTA, 1mM DTT, 500ug/ml BSA, 50% Glycerol
Specification Version: PS-R3505M v1.0
Effective Date: 14 Jun 2013

Assay Name/Specification (minimum release criteria)	Lot #0051308
Blue-White Screening (Terminal Integrity) - A sample of Litmus38i vector linearized with a 10-fold excess of <i>EagI-HF</i> TM , religated and transformed into an <i>E. coli</i> strain expressing the LacZ beta fragment gene results in <1% white colonies.	Pass
Endonuclease Activity (Nicking) - A 50 µl reaction in CutSmart TM Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 Units of <i>EagI-HF</i> TM 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 TM Buffer containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 100 units of <i>EagI-HF</i> TM 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 <i>EagI-HF</i> TM , >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 <i>EagI-HF</i> TM .	Pass
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in CutSmart TM Buffer containing 1 µg of pXba DNA and a minimum of 100 Units of <i>EagI-HF</i> TM incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) - <i>EagI-HF</i> TM is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass



New England Biolabs Certificate of Analysis

* 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
14 Jun 2013



Inspected by
Stephanie Doucette
19 Dec 2013

