240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name: HpyAV

Catalog #: R0621S/L

Concentration: 2,000 units/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction

volume of 50 μ l.

 Lot #:
 0131704

 Assay Date:
 04/2017

 Expiration Date:
 4/2019

 Storage Temp:
 -20°C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl, 0.5 mM NiSO₄, 0.1 mM EDTA, 50 % Glycerol, 200 μg/ml BSA, (pH 7.4 @ 25°C)

Specification Version: PS-R0621S/L v3.0
Effective Date: 09 Jun 2016

| Assay Name/Specification (minimum release criteria) | Lot #0131704 |
|---|--------------|
| 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 20 units of HpyAV incubated for 4 hours at 37°C releases <0.3% of the total radioactivity. | Pass |
| Ligation and Recutting (Terminal Integrity) - After a 2-fold over-digestion of Lambda DNA with HpyAV, ~50% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~50% can be recut with HpyAV. | Pass |
| Non-Specific DNase Activity (16 Hour) - A 50 μl reaction in CutSmart® Buffer containing 1 μg of Lambda DNA and a minimum of 6 units of HpyAV incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass |

^{*} 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 09 Jun 2016







Inspected by Penghua Zhang 14 Apr 2017