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: Hpy188III Catalog #: R0622S/L Concentration: 5.000 units/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pUC19 DNA in 1 hour at 37°C in a total reaction

volume of 50 μ l.

Lot #: 0111412 12/2014 Assay Date: 12/2016 Expiration Date: Storage Temp: -20 °C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 μg/ml BSA

Specification Version: PS-R0622S/L v1.0 Effective Date: 23 Dec 2014

Assay Name/Specification (minimum release criteria)	Lot #0111412
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 25 units of Hpy188III incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) - After a 5-fold over-digestion of pUC19 DNA with Hpy188III, ~75% 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 Hpy188III.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 μl reaction in CutSmart TM Buffer containing 1 μg of pUC19 DNA and a minimum of 50 Units of Hpy188III incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

Authorized by Derek Robinson

23 Dec 2014 ISO 9001





Inspected by Terry Petronzio 26 Dec 2014

Theon R. Returning

^{*} 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.