

## New England Biolabs Certificate of Analysis

**Product Name:** *Hpy188III*  
**Catalog Number:** *R0622S*  
**Concentration:** *5,000 U/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 µl.*  
**Packaging Lot Number:** *10091710*  
**Expiration Date:** *08/2022*  
**Storage Temperature:** *-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 v2.0*

Hpy188III Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0622SVIAL	Hpy188III	10080590	Pass
B7204SVIAL	CutSmart® Buffer	10089402	Pass

Assay Name/Specification	Lot # 10091710
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of pUC19 DNA and a minimum of 5 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
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 25 units of Hpy188III incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> 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

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](http://www.neb.com/trademarks) for additional information.



Pengda Zhang  
Production Scientist  
22 Nov 2020



Michael Tonello  
Packaging Quality Control Inspector  
22 Nov 2020