

## New England Biolabs Certificate of Analysis

**Product Name:** Hpy166II  
**Catalog Number:** R0616L  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 ·g of pBR322 in 1 hour at 37°C in total reaction volume of 50 ·l.  
**Lot Number:** 10015525  
**Expiration Date:** 07/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA  
**Specification Version:** PS-R0616S/L v1.0

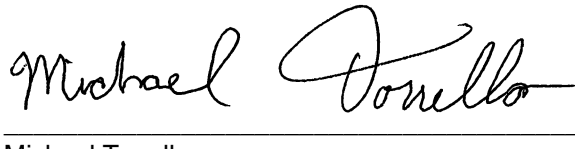
| Hpy166II Component List |                       |            |                      |
|-------------------------|-----------------------|------------|----------------------|
| NEB Part Number         | Component Description | Lot Number | Individual QC Result |
| R0616LVIAL              | Hpy166II              | 10015526   | Pass                 |
| B7204SVIAL              | CutSmart® Buffer      | 10010632   | Pass                 |

| Assay Name/Specification   | Lot # 10015525 |
|--|----------------|
| <b>Exonuclease Activity (Radioactivity Release)</b><br>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 30 units of Hpy166II incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.    | Pass           |
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 10-fold over-digestion of pBR322 DNA with Hpy166II, >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 Hpy166II.  | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pBR322 DNA and a minimum of 50 units of Hpy166II 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>Protein Purity Assay (SDS-PAGE)</b><br>Hpy166II is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.   | Pass           |

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



Tony Spear-Alfonso  
Production Scientist  
12 Jun 2018



Michael Tonello  
Packaging Quality Control Inspector  
17 Jul 2018