

## New England Biolabs Certificate of Analysis

**Product Name:** HpyAV  
**Catalog Number:** R0621S  
**Concentration:** 2,000 U/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 µl.  
**Lot Number:** 10022250  
**Expiration Date:** 09/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 300 mM NaCl, 10 mM Tris-HCl, 0.5 mM NiSO<sub>4</sub>, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)  
**Specification Version:** PS-R0621S/L v3.0

HpyAV Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0621SVIAL	HpyAV	10021414	Pass
B7204SVIAL	CutSmart® Buffer	10015393	Pass

Assay Name/Specification	Lot # 10022250
<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 20 units of HpyAV incubated for 4 hours at 37°C releases <0.3% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> 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
<b>Non-Specific DNase Activity (16 Hour)</b> 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

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



Tony Spear-Alfonso  
Production Scientist  
23 Jul 2018



Michael Tonello  
Packaging Quality Control Inspector  
21 Sep 2018