

## New England Biolabs Certificate of Analysis

**Product Name:** *Fnu4HI*  
**Catalog Number:** *R0178L*  
**Concentration:** *10,000 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:** *10033056*  
**Expiration Date:** *01/2021*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*  
**Specification Version:** *PS-R0178S/L v1.0*

Fnu4HI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0178LVIAL	Fnu4HI	10033053	Pass
B7204SVIAL	CutSmart® Buffer	10021124	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021141	Pass

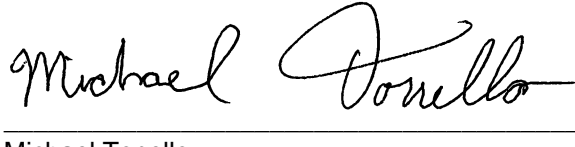
Assay Name/Specification	Lot # 10033056
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 10 units of Fnu4HI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 20-fold over-digestion of Lambda DNA with Fnu4HI, 95% can be recut with Fnu4HI.</p>	Pass
<p><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 30 Units of Fnu4HI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Protein Purity Assay (SDS-PAGE)</b>            Fnu4HI is &gt;95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	Pass

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



---

Tony Spear-Alfonso  
Production Scientist  
24 Jan 2019



---

Michael Tonello  
Packaging Quality Control Inspector  
20 Feb 2019