

## 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.*  
**Packaging Lot Number:** *10082005*  
**Expiration Date:** *04/2022*  
**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	10070977	Pass
B7204SVIAL	CutSmart® Buffer	10081169	Pass

Assay Name/Specification	Lot # 10082005
<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 <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 20-fold over-digestion of Lambda DNA with Fnu4HI, 95% can be recut with Fnu4HI.	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 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.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> Fnu4HI 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.

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.



Penghua Zhang  
Production Scientist  
14 Oct 2020



Michael Tonello  
Packaging Quality Control Inspector  
14 Oct 2020