

## New England Biolabs Certificate of Analysis

**Product Name:** Agel-HF®  
**Catalog Number:** R3552S  
**Concentration:** 20,000 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 of 50 µl.  
**Lot Number:** 10036507  
**Expiration Date:** 11/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R3552S/L v1.0

Agel-HF® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3552SVIAL	Agel-HF®	10028839	Pass
B7204SVIAL	CutSmart® Buffer	10031567	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021141	Pass

Assay Name/Specification	Lot # 10036507
<p><b>Blue-White Screening (Terminal Integrity)</b>            A sample of LITMUS28i vector linearized with a 10-fold excess of Agel-HF™, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in &lt;1% white colonies.</p>	Pass
<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 200 units of Agel-HF™ 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 Agel-HF™, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with Agel-HF™.</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 100 units of Agel-HF™ incubated for 16 hours at 37°C results in a DNA pattern free</p>	Pass

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of detectable nuclease degradation as determined by agarose gel electrophoresis.	

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



Jianying Luo  
Production Scientist  
14 Dec 2018



Michael Tonello  
Packaging Quality Control Inspector  
26 Feb 2019