

## 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:** 10025898  
**Expiration Date:** 10/2020  
**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®	10025897	Pass
B7204SVIAL	CutSmart® Buffer	10018444	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10018417	Pass

Assay Name/Specification	Lot # 10025898
<b>Ligation and Recutting (Terminal Integrity)</b> After a 20-fold over-digestion of Lambda DNA with Agel-HF™, >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 Agel-HF™.	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 100 units of Agel-HF™ 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>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 <1% white colonies.	Pass
<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	Pass

Assay Name/Specification	Lot # 10025898
for 4 hours at 37°C releases <0.1% of the total radioactivity.	

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



Tony Spear-Alfonso  
Production Scientist  
17 Sep 2018



Michael Tonello  
Packaging Quality Control Inspector  
23 Oct 2018