

New England Biolabs Certificate of Analysis

Product Name: HindIII-HF®
Catalog Number: R3104S
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 volume of 50 µl.
Packaging Lot Number: 10079634
Expiration Date: 04/2022
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
Specification Version: PS-R3104S/L v1.0

HindIII-HF® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3104SVIAL	HindIII-HF®	10072899	Pass
B7204SVIAL	CutSmart® Buffer	10074632	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10075962	Pass

Assay Name/Specification	Lot # 10079634
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 200 Units of HindIII-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
Protein Purity Assay (SDS-PAGE) HindIII-HF™ is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Ligation and Recutting (Terminal Integrity) After a 100-fold over-digestion of Lambda DNA with HindIII-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 HindIII-HF™.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 60 Units of HindIII-HF™ incubated for 4 hours at 37°C results in <10%	Pass

Assay Name/Specification	Lot # 10079634
<p>conversion to the nicked form as determined by agarose gel electrophoresis.</p> <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 200 units of HindIII-HF™ incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	<p>Pass</p>

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

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Penghua Zhang
Production Scientist
03 Aug 2020



Josh Hersey
Packaging Quality Control Inspector
03 Aug 2020