

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.
Lot Number: 10014308
Expiration Date: 03/2020
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 [®]	0071803	Pass
B7204SVIAL	CutSmart [®] Buffer	3091805	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	0251805	Pass

Assay Name/Specification	Lot # 10014308
Protein Purity Assay (SDS-PAGE) HindIII-HF [™] is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	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% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart [™] Buffer containing 1 µg of a mixture of single and double-stranded [³ H] 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.	Pass
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	Pass

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<p>electrophoresis.</p> <p>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™.</p>	<p>Pass</p>

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



Penghua Zhang
Production Scientist
26 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
26 Jun 2018