

New England Biolabs Certificate of Analysis

Product Name: HindIII-HF®
Catalog Number: R3104M
Concentration: 100,000 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: 10014972
Expiration Date: 07/2020
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-R3104T/M v1.0

HindIII-HF® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3104MVIAL	HindIII-HF®	10014973	Pass
B7204SVIAL	CutSmart® Buffer	10010634	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10012311	Pass

Assay Name/Specification	Lot # 10014972
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
Endonuclease Activity (Nicking) A 50 µl reaction in 50 µl PhiX174 NEBuffer 4 60 1 µg HindIII-HF™ PhiX174 37 60 units% conversion to the nicked form as determined by agarose gel electrophoresis. 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	Pass

Assay Name/Specification	Lot # 10014972
<p>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>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.



Tony Spear-Alfonso
Production Scientist
13 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
13 Jul 2018