NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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New England Biolabs
Certificate of Analysis

Product Name:	*DraIII-HF®*
Catalog Number:	*R3510L*
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:	*10051866*
Expiration Date:	*06/2021*
Storage Temperature:	*-20°C*
Storage Conditions:	*20 mM Tris-HCl, 300 mM NaCl, 1 mM Dithiothreitol, 0.1 mM EDTA, 200 µg/ml BSA, 50% Glycerol, pH 7.4 @ 25°C*
Specification Version:	*PS-R3510S/L v1.0*

DraIII-HF® Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
R3510LVIAL	DraIII-HF®	10047986	**Pass**
B7204SVIAL	CutSmart® Buffer	10046087	**Pass**
B7024SVIAL	Gel Loading Dye, Purple (6X)	10043910	**Pass**

Assay Name/Specification	Lot # 10051866
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 DraIII-HF™ incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with DraIII-HF™, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, >95% can be recut with DraIII-HF™.	**Pass**
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 20 Units of DraIII-HF™ incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
Protein Purity Assay (SDS-PAGE) DraIII-HF™ is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	**Pass**

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

Anthony Francis
Production Scientist
04 Jul 2019

Jay Minichiello
Packaging Quality Control Inspector
14 Aug 2019