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New England Biolabs Certificate of Analysis

Product Name: Avall
Catalog Number: R0153S
Concentration: 10,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg

of Lambda DNA in rCutSmart Buffer in 1 hour at 37°C in a total

reaction volume of 50 μl.

Packaging Lot Number: 10177231
Expiration Date: 01/2025
Storage Temperature: -20°C

Storage Conditions: 10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200

μg/ml rAlbumin (pH 7.4 @ 25°C)

Specification Version: PS-R0153S/L v2.0

Avall Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0153SVIAL	Avall	10177227	Pass	
B6004SVIAL	rCutSmart™ Buffer	10175290	Pass	

Assay Name/Specification	Lot # 10177231
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with Avall, >95% of the DNA fragments	Pass
can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with AvaII.	
Functional Testing (15 minute Digest) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of Lambda DNA and 1 µl of	Pass
Avall incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.	
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of a mixture of single and	Pass
double-stranded [3H] E. coli DNA and a minimum of 100 units of Avall incubated for	
4 hours at 37°C releases <0.1% of the total radioactivity.	
Non-Specific DNase Activity (16 Hour)	Pass
A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of	
100 units of AvaII incubated for 16 hours at 37°C results in a DNA pattern free of	



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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

YunJie Sun \
Production Scientist

24 Jan 2023

Josh Hersey

Packaging Quality Control Inspector

02 Feb 2023



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