

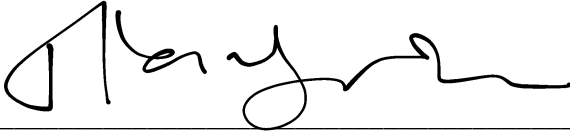
New England Biolabs Certificate of Analysis

Product Name: Tsel
Catalog Number: R0591L
Concentration: 5,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg Lambda DNA in 1 hour at 65°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10063058
Expiration Date: 01/2022
Storage Temperature: -20°C
Storage Conditions: 500 mM KCl, 10 mM Tris-HCl (pH 7.5), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0591S/L v1.0

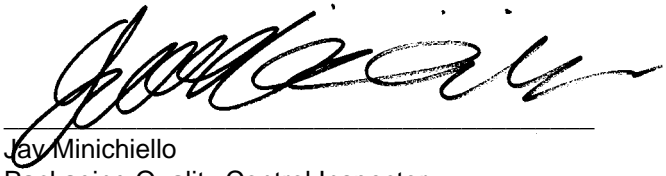
Tsel Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0591LVIAL	Tsel	10063056	Pass
B7204SVIAL	CutSmart® Buffer	10064409	Pass

Assay Name/Specification	Lot # 10063058
Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of Lambda DNA with Tsel, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 25°C. Of these ligated fragments, >95% can be recut with Tsel.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 5 Units of Tsel incubated for 16 hours at 65°C results in a DNA pattern free of detectable nuclease degradation 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 5 units of Tsel incubated for 4 hours at 65°C releases <0.1% of the total radioactivity.	Pass

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



Jianying Luo
Production Scientist
08 Jan 2020



Jay Minichiello
Packaging Quality Control Inspector
10 Feb 2020