

New England Biolabs Certificate of Analysis

Product Name: StyD4I
Catalog Number: R0638S
Concentration: 5,000 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: 10011898
Expiration Date: 06/2020
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-R0638S/L v1.0

StyD4I Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0638SVIAL	StyD4I	10011899	Pass
B7204SVIAL	CutSmart® Buffer	3081804	Pass

Assay Name/Specification	Lot # 10011898
Ligation and Recutting (Terminal Integrity) After a 2-fold over-digestion of Lambda DNA with StyD4I, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~50% can be recut with StyD4I.	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 StyD4I incubated for 16 hours at 37°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 StyD4I incubated for 4 hours at 37°C releases <0.2% of the total radioactivity.	Pass

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



Jianying Luo
Production Scientist
21 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
12 Jul 2018