

New England Biolabs Certificate of Analysis

Product Name: SplintR[®] Ligase
Catalog Number: M0375S
Concentration: 25,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme needed to ligate (to 50% completion) 2 picomoles of a tripartite FAM-labeled DNA:RNA hybrid substrate in a 20 µl reaction at 25°C in 15 minutes in 1X SplintR[®] Ligase Reaction Buffer.
Lot Number: 10024417
Expiration Date: 07/2020
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl , 300 mM NaCl , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0375S/L v1.0

SplintR [®] Ligase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0375SVIAL	SplintR [®] Ligase	10015229	Pass
B0375SVIAL	10X SplintR [®] Ligase Reaction Buffer	10020201	Pass

Assay Name/Specification	Lot # 10024417
Endonuclease Activity (Nicking) A 50 µl reaction in SplintR [®] Ligase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 125 units of SplintR [®] Ligase 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 SplintR [®] Ligase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 125 units of SplintR [®] Ligase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Protein Purity Assay (SDS-PAGE) SplintR [®] Ligase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA	Pass

Assay Name/Specification	Lot # 10024417
and a minimum of 25 units of SplintR [®] Ligase is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	

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



Bo Wu
Production Scientist
17 Jul 2018



Michael Tonello
Packaging Quality Control Inspector
12 Oct 2018