

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.
Packaging Lot Number: 10111335
Expiration Date: 06/2023
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	10111334	Pass
B0375SVIAL	10X SplintR [®] Ligase Reaction Buffer	10106685	Pass

Assay Name/Specification	Lot # 10111335
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 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.	Pass
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)	Pass

Assay Name/Specification	Lot # 10111335
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.	

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.



Bhairavi Jani
Production Scientist
01 Jul 2021



Josh Hersey
Packaging Quality Control Inspector
01 Jul 2021