NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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www.neb.com
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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:	*10133508*
Expiration Date:	*12/2023*
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	10133507	**Pass**
B0375SVIAL	10X SplintR® Ligase Reaction Buffer	10106685	**Pass**

Assay Name/Specification	**Lot # 10133508**
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**
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**
Endonuclease Activity (Nicking) A 50 µl reaction in SplintR® Ligase Reaction Buffer containing 1 µg of supercoiled	**Pass**

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Assay Name/Specification	Lot # 10133508
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.	

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
12 Jan 2022

Michael Tonello
Packaging Quality Control Inspector
12 Jan 2022