

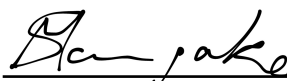
## New England Biolabs Certificate of Analysis

*Product Name:* RecJf  
*Catalog #:* M0264S/L  
*Concentration:* 30,000 units/ml  
*Unit Definition:* One unit is defined as the amount of enzyme required to produce 0.05 nmol TCA soluble deoxyribonucleotide in a total reaction volume of 50 µl in 30 minutes at 37°C.  
*Lot #:* 0051804  
*Assay Date:* 04/2018  
*Expiration Date:* 04/2020  
*Storage Temp:* -20°C  
*Storage Conditions:* 10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 200 µg/ml BSA, 50 % Glycerol, (pH 7.4 @ 25°C)  
*Specification Version:* PS-M0264S/L v1.0  
*Effective Date:* 16 Apr 2018

| Assay Name/Specification (minimum release criteria)   | Lot #0051804 |
|---|--------------|
| <b>Endonuclease Activity (Circular Single Stranded DNA)</b> - A 50 µl reaction in CutSmart® Buffer containing 1 µg of PhiX174 Virion DNA and a minimum of 90 units of RecJf incubated for 4 hours at 37°C results in <10% conversion to linear DNA as determined by agarose gel electrophoresis.  | <b>Pass</b>  |
| <b>Endonuclease Activity (Nicking)</b> - A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 90 units of RecJf incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.   | <b>Pass</b>  |
| <b>Ligation and Recutting (Terminal Integrity, Digested DNA)</b> - A 50 µl reaction in 1X CutSmart® Buffer containing 4 µg of pUC19-SphI digest and a minimum of 60 units of RecJf incubated for 4 hours at 37°C results in >95% ligation of the DNA fragments as determined by agarose gel electrophoresis. Of these ligated fragments, >95% can be recut with SphI.     | <b>Pass</b>  |
| <b>Ligation and Recutting (Terminal Integrity, Digested DNA)</b> - A 50 µl reaction in 1X CutSmart® Buffer containing 4 µg of Lambda-HaeIII digest and a minimum of 60 units of RecJf incubated for 4 hours at 37°C results in >95% ligation of the DNA fragments as determined by agarose gel electrophoresis. Of these ligated fragments, >95% can be recut with HaeII. | <b>Pass</b>  |
| <b>RNase Activity Assay (4 Hour Digestion)</b> - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 30 units of RecJf is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.                                      | <b>Pass</b>  |



Authorized by  
Derek Robinson  
16 Apr 2018



Inspected by  
Mala Samaranayake  
10 Apr 2018

