

## New England Biolabs Certificate of Analysis

**Product Name:** RecJf  
**Catalog Number:** M0264S  
**Concentration:** 30,000 U/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.  
**Packaging Lot Number:** 10137397  
**Expiration Date:** 01/2024  
**Storage Temperature:** -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 v2.0

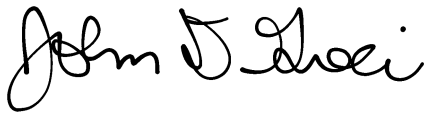
| RecJf Component List |                       |            |                      |
|----------------------|-----------------------|------------|----------------------|
| NEB Part Number      | Component Description | Lot Number | Individual QC Result |
| M0264SVIAL           | RecJf                 | 10130288   | Pass                 |
| B7002SVIAL           | NEBuffer™ 2           | 10120519   | Pass                 |

| Assay Name/Specification  | Lot # 10137397 |
|---|----------------|
| <b>Endonuclease Activity (Nicking)</b><br>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.  | Pass           |
| <b>Endonuclease Activity (Circular Single Stranded DNA)</b><br>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.                                     | Pass           |
| <b>RNase Activity Assay (4 Hour Digestion)</b><br>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. | Pass           |
| <b>Ligation and Recutting (Terminal Integrity, Digested DNA)</b><br>A 50 µl reaction in 1X CutSmart® Buffer containing 4 µg of pUC19-SphI digest and a  | Pass           |

| Assay Name/Specification  | Lot # 10137397     |
|---|--------------------|
| <p>minimum of 60 units of RecJf incubated for 4 hours at 37°C results in &gt;95% ligation of the DNA fragments as determined by agarose gel electrophoresis. Of these ligated fragments, &gt;95% can be recut with SphI.</p> <p><b>Ligation and Recutting (Terminal Integrity, Digested DNA)</b><br/>A 50 µl reaction in 1X CutSmart® Buffer containing 4 µg of PhiX174-HaeIII digest and a minimum of 60 units of RecJf incubated for 4 hours at 37°C results in &gt;95% ligation of the DNA fragments as determined by agarose gel electrophoresis. Of these ligated fragments, &gt;95% can be recut with HaeIII.</p> | <p><b>Pass</b></p> |

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

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12 Jan 2022



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12 Jan 2022