

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: 10178533
Expiration Date: 01/2025
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	10176270	Pass
B7002SVIAL	NEBuffer™ 2	10173666	Pass

Assay Name/Specification	Lot # 10178533
Endonuclease Activity (Nicking) 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
Endonuclease Activity (Circular Single Stranded DNA) 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
RNase Activity Assay (4 Hour Digestion) 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
Ligation and Recutting (Terminal Integrity, Digested DNA) A 50 µl reaction in 1X CutSmart® Buffer containing 4 µg of pUC19-SphI digest and a	Pass

Assay Name/Specification	Lot # 10178533
<p>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.</p> <p>Ligation and Recutting (Terminal Integrity, Digested DNA) 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 >95% ligation of the DNA fragments as determined by agarose gel electrophoresis. Of these ligated fragments, >95% can be recut with HaeIII.</p>	<p>Pass</p>

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

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Production Scientist
19 Jan 2023



Josh Hersey
Packaging Quality Control Inspector
23 Jan 2023