NEW ENGLAND BioLabs Inc.
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240 County Road
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New England Biolabs
Certificate of Analysis

Product Name:	*Exonuclease V (RecBCD)*
Catalog Number:	*M0345S*
Concentration:	*10,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to produce 1 nmol of acid-soluble deoxyribonucleotide from double-stranded DNA in 30 minutes at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10182556*
Expiration Date:	*03/2025*
Storage Temperature:	*-20°C*
Storage Conditions:	*50 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.1% Triton®X-100, (pH 7.5 @ 25°C)*
Specification Version:	*PS-M0345S/L v1.0*

Exonuclease V (RecBCD) Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
P0756SVIAL	Adenosine 5'-Triphosphate (ATP)	10176561	**Pass**
M0345SVIAL	Exonuclease V (RecBCD)	10178730	**Pass**
B7004SVIAL	NEBuffer™ 4	10161527	**Pass**

Assay Name/Specification	**Lot # 10182556**
Endonuclease Activity (Nicked Double-Stranded DNA) A 50 µl reaction in NEBuffer 4 supplemented with 1 mM ATP containing 1 µg of nicked PhiX174 RF II DNA and a minimum of 50 units of Exonuclease V (RecBCD) incubated for 4 hours at 37°C results in <10% loss in PhiX174 RF II DNA as determined by agarose gel electrophoresis.	**Pass**
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 supplemented with 1 mM ATP containing 1 µg of supercoiled PhiX174 RF I DNA and a minimum of 100 units of Exonuclease V (RecBCD) incubated for 4 hours at 37°C results in <10% loss in supercoiled DNA as determined by agarose gel electrophoresis.	**Pass**
Protein Purity Assay (SDS-PAGE) Exonuclease V (RecBCD) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
RNase Activity (Extended Digestion)	**Pass**

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Assay Name/Specification	Lot # 10182556
A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 10 units of Exonuclease V (RecBCD) 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.	

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

Penghua Zhang
Production Scientist
01 Mar 2023

Michael Tonello
Packaging Quality Control Inspector
02 Mar 2023