

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: 10248320
Expiration Date: 06/2026
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)	10243505	Pass
M0345SVIAL	Exonuclease V (RecBCD)	10248318	Pass
B7004SVIAL	NEBuffer™ 4	10225682	Pass

Assay Name/Specification	Lot # 10248320
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


Assay Name/Specification	Lot # 10248320
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.

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.



Beth Paschal
Production Scientist
31 May 2024



Michael Tonello
Packaging Quality Control Inspector
07 Aug 2024