

## New England Biolabs Certificate of Analysis

**Product Name:** 5' Deadenylase  
**Catalog Number:** M0331S  
**Concentration:** 50,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to remove 10 pmoles of AMP from a 5'adenylated DNA oligo in 10 minutes at 30°C.  
**Packaging Lot Number:** 10218742  
**Expiration Date:** 11/2025  
**Storage Temperature:** -20°C  
**Storage Conditions:** 100 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 0.1% Triton®X-100, 50% Glycerol, (pH 7.5 @ 25°C)  
**Specification Version:** PS-M0331S v1.0

5' Deadenylase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0331SVIAL	5' Deadenylase	10218002	Pass
B7001SVIAL	NEBuffer™ 1	10198640	Pass

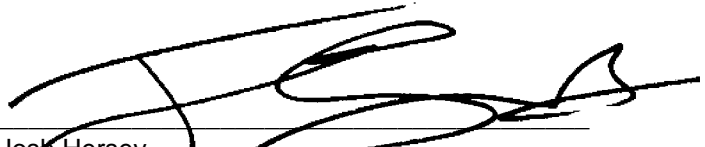
Assay Name/Specification	Lot # 10218742
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in NEBuffer 1 containing 1 µg of supercoiled PhiX174 RF I DNA and a minimum of 50 units of 5' Deadenylase incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 150 units of 5' Deadenylase incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Protein Purity Assay (SDS-PAGE)</b>            5' Deadenylase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b>            A 10 µl reaction in NEBuffer 4 containing 40 ng of f-300 RNA transcript and a minimum of 50 units of 5' Deadenylase is incubated at 37°C. After incubation for 4 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass

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

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Bo Wu  
Production Scientist  
14 Nov 2023



Josh Hersey  
Packaging Quality Control Inspector  
22 Nov 2023