240 County Road
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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:	*10231508*
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 # 10231508
Endonuclease Activity (Nicking) 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 37ºC results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 150 units of 5' Deadenylase incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity.	**Pass**
Protein Purity Assay (SDS-PAGE) 5' Deadenylase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
RNase Activity (Extended Digestion) 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 37ºC. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	**Pass**

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

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14 Nov 2023

Michael Tonello
Packaging Quality Control Inspector
16 Apr 2024