NEW ENGLAND BioLabs® Inc.

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New England Biolabs
Product Specification

Product Name:	*5' Deadenylase*
Catalog #:	*M0331S*
Concentration:	*50,000 units/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.*
Shelf Life:	*24 months*
Storage Temp:	*-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*
Effective Date:	*16 Oct 2017*

Assay Name/Specification (minimum release criteria)
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 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.
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 37°C releases <0.1% of the total radioactivity.
Protein Purity Assay (SDS-PAGE) - 5' Deadenylase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.
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 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.

Date 16 Oct 2017

Derek Robinson
Director of Quality Control

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices