NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name:	*AMV Reverse Transcriptase*
Catalog Number:	*M0277L*
Concentration:	*10,000 U/ml*
Unit Definition:	*One unit is defined as the amount of enzyme required to incorporate 1 nmol of dTTP into an acid-insoluble form in 10 minutes at 37°C.*
Packaging Lot Number:	*10055896*
Expiration Date:	*06/2021*
Storage Temperature:	*-20°C*
Storage Conditions:	*200 mM KPO4 , 2 mM DTT, 0.2 % Triton®X-100, 50 % Glycerol, (pH 7.2 @ 25°C)*
Specification Version:	*PS-M0277S/L v1.0*

AMV Reverse Transcriptase Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
M0277LVIAL	AMV Reverse Transcriptase	10044732	**Pass**
B0277AVIAL	AMV Reverse Transcriptase Reaction Buffer	10020859	**Pass**

Assay Name/Specification	**Lot # 10055896**
RNAse Activity Assay (4 Hour Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of AMV Reverse Transcriptase 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**
Endonuclease Activity (Nicking) A 50 µl reaction in AMV Reverse Transcriptase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of AMV Reverse Transcriptase 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 AMV Reverse Transcriptase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [^{3}H] E. coli DNA and a minimum of 50 units of AMV Reverse Transcriptase incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity.	**Pass**
Non-Specific DNase Activity (16 Hour)	**Pass**

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Assay Name/Specification	Lot # 10055896
A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 10 units of AMV Reverse Transcriptase incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

Tony Spear-Alfonso
Production Scientist
30 Oct 2018

Michael Tonello
Packaging Quality Control Inspector
15 Nov 2019