

## New England Biolabs Certificate of Analysis

*Product Name:* AMV Reverse Transcriptase  
*Catalog #:* M0277S/L  
*Concentration:* 10,000 units/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.  
*Lot #:* 0211803  
*Assay Date:* 03/2018  
*Expiration Date:* 3/2020  
*Storage Temp:* -20°C  
*Storage Conditions:* 200 mM KPO<sub>4</sub> , 2 mM DTT, 0.2 % Triton®X-100, 50 % Glycerol, (pH 7.2 @ 25°C)  
*Specification Version:* PS-M0277S/L v1.0  
*Effective Date:* 31 Jan 2018

Assay Name/Specification (minimum release criteria)	Lot #0211803
<b>Endonuclease Activity (Nicking)</b> - 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 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	<b>Pass</b>
<b>Exonuclease Activity (Radioactivity Release)</b> - A 50 µl reaction in AMV Reverse Transcriptase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] <i>E. coli</i> DNA and a minimum of 50 units of AMV Reverse Transcriptase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 Hour)</b> - 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 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	<b>Pass</b>
<b>RNase Activity Assay (4 Hour Digestion)</b> - 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 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	<b>Pass</b>



Authorized by  
Derek Robinson  
31 Jan 2018



Inspected by  
Tony Spear-Alfonso  
03 Mar 2018

