

## New England Biolabs Certificate of Analysis

**Product Name:** *AluI Methyltransferase*  
**Catalog Number:** *M0220S*  
**Concentration:** *5,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to protect 1 µg Lambda DNA in 1 hour at 37°C in a total reaction volume of 10 µl against cleavage by AluI restriction endonuclease.*  
**Packaging Lot Number:** *10253672*  
**Expiration Date:** *06/2026*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 µg/ml BSA , 50 % Glycerol, (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-M0220S v1.0*

AluI Methyltransferase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0220SVIAL	AluI Methyltransferase	10245563	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10233985	Pass
B0220SVIAL	AluI Methyltransferase Reaction Buffer	10245566	Pass

Assay Name/Specification	Lot # 10253672
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of AluI Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Functional Testing (Methyltransferase)</b> A 10 µl reaction in AluI Methyltransferase Reaction Buffer supplemented with 80 µM SAM containing 1 µg of Lambda DNA and 1 unit of AluI Methyltransferase incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 10 units of AluI in NEBuffer 1 with 10 mM MgCl <sub>2</sub> incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 2 containing 1 µg of Lambda DNA and a minimum of 50 units of AluI Methyltransferase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel	<b>Pass</b>

Assay Name/Specification	Lot # 10253672
electrophoresis.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



Nicole Castagnozzi  
Production Scientist  
21 Jun 2024



Josh Hersey  
Packaging Quality Control Inspector  
15 Aug 2024