

New England Biolabs Certificate of Analysis

Product Name: 5-hydroxythymidine DNA Kinase
Catalog Number: M0659S
Concentration: 20,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to protect 1 µg of *Bacillus subtilis* bacteriophage SP8 genomic DNA in ##30 minutes at 37°C in a total reaction volume of 20 µl against cleavage by NcoI-HF restriction endonuclease.
Packaging Lot Number: 10179691
Expiration Date: 04/2025
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0659S v1.0

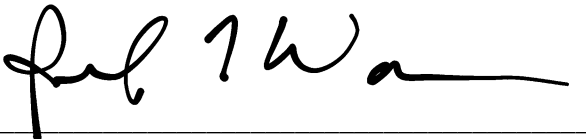
5-hydroxythymidine DNA Kinase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0659SVIAL	5-hydroxymethyluridine DNA Kinase	10179690	Pass
B0202SVIAL	T4 DNA Ligase Reaction Buffer	10183697	Pass

Assay Name/Specification	Lot # 10179691
<p>Endonuclease Activity (Nicking) A 50 µl reaction in T4 DNA Ligase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 units of 5-hydroxymethyluridine DNA Kinase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in T4 DNA Ligase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 20 units of 5-hydroxymethyluridine DNA Kinase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in T4 DNA Ligase Reaction Buffer containing 1 µg of Lambda DNA and a minimum of 20 units of 5-hydroxymethyluridine DNA Kinase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass

Assay Name/Specification	Lot # 10179691
<p>Protein Purity Assay (SDS-PAGE) 5-hydroxymethyluridine DNA Kinase is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<p>Pass</p>

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

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Jenna Ware
Production Scientist
04 Apr 2023



Josh Hersey
Packaging Quality Control Inspector
18 May 2023