

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: 10098366
Expiration Date: 02/2024
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	10138848	Pass
B0202SVIAL	T4 DNA Ligase Reaction Buffer	10137732	Pass

Assay Name/Specification	Lot # 10098366
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.	Pass
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 [³ H] 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.	Pass
Protein Purity Assay (SDS-PAGE) 5-hydroxymethyluridine DNA Kinase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
Endonuclease Activity (Nicking)	Pass

Assay Name/Specification	Lot # 10098366
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.	

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 for additional information.



Jenna Ware
Production Scientist
28 Jan 2022



Michael Tonello
Packaging Quality Control Inspector
28 Jan 2022