

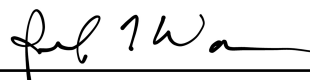
New England Biolabs Certificate of Analysis

Product Name: 5-hydroxymethyluridine DNA Kinase
Catalog #: M0659S
Concentration: 20,000 units/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.
Lot #: 0011710
Assay Date: 10/2017
Expiration Date: 10/2019
Storage Temp: -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
Effective Date: 03 Oct 2017

Assay Name/Specification (minimum release criteria)	Lot #0011710
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.	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] <i>E. coli</i> 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
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
Protein Purity Assay (SDS-PAGE) - 5-hydroxymethyluridine DNA Kinase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass



Authorized by
Derek Robinson
03 Oct 2017



Inspected by
Jenna Ware
02 Nov 2017

