

## New England Biolabs Certificate of Analysis

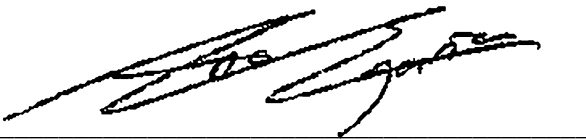
**Product Name:** Quick CIP  
**Catalog Number:** M0525L  
**Concentration:** 5,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme that hydrolyzes 1  $\mu\text{mol}$  of p-Nitrophenyl Phosphate, PNPP in a total reaction volume of 1 ml in 1 minute at 37°C.  
**Packaging Lot Number:** 10061379  
**Expiration Date:** 10/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 25 mM Tris-HCl , 1 mM MgCl<sub>2</sub> , 0.1 mM ZnCl<sub>2</sub> , 50 % Glycerol, (pH 7.5 @ 25°C)  
**Specification Version:** PS-M0525S/L v1.0

Quick CIP Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0525LVIAL	Quick CIP	10055534	Pass
B7204SVIAL	CutSmart® Buffer	10068802	Pass

Assay Name/Specification	Lot # 10061379
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 <math>\mu\text{l}</math> reaction in CutSmart® Buffer containing 1 <math>\mu\text{g}</math> of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 50 units of Quick CIP incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Endonuclease Activity (Nicking)</b>            A 50 <math>\mu\text{l}</math> reaction in CutSmart® Buffer containing 1 <math>\mu\text{g}</math> of supercoiled PhiX174 DNA and a minimum of 50 units of Quick CIP incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b>            A 10 <math>\mu\text{l}</math> reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 <math>\mu\text{l}</math> of Quick CIP is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using gel electrophoresis using fluorescent detection.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 <math>\mu\text{l}</math> reaction in NEBuffer 4 containing 1 <math>\mu\text{g}</math> of PhiX174-HaeIII DNA and a minimum</p>	Pass

Assay Name/Specification	Lot # 10061379
of 50 units of Quick CIP incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	

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



Ana Egana  
Production Scientist  
15 Mar 2020



Josh Hersey  
Packaging Quality Control Inspector  
15 Mar 2020