

New England Biolabs Certificate of Analysis

Product Name: Alkaline Phosphatase, Calf Intestinal (CIP)
Catalog Number: M0290S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme that hydrolyzes 1 μmol of p-Nitrophenyl Phosphate, PNPP in a total reaction volume of 1 ml in 1 minute at 37°C
Lot Number: 10013341
Expiration Date: 04/2020
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 50 mM KCl, 1 mM MgCl₂, 0.1 mM ZnCl₂, 50 % Glycerol, (pH 8.2 @ 25°C)
Specification Version: PS-M0290S/L v2.0

Alkaline Phosphatase, Calf Intestinal (CIP) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0290SVIAL	Alkaline Phosphatase, Calf Intestinal (CIP)	0731804	Pass
B7204SVIAL	CutSmart® Buffer	10010634	Pass

Assay Name/Specification	Lot # 10013341
<p>RNase Activity (Extended Digestion) A 10 μl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μl of Alkaline Phosphatase, Calf Intestinal (CIP) is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 μl reaction in NEBuffer 4 containing 1 μg of PhiX174-HaeIII DNA and a minimum of 50 units of Alkaline Phosphatase, Calf Intestinal (CIP) 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
<p>Endonuclease Activity (Nicking) A 50 μl reaction in CutSmart® Buffer containing 1 μg of supercoiled PhiX174 DNA and a minimum of 50 units of Alkaline Phosphatase, Calf Intestinal (CIP) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass

Assay Name/Specification	Lot # 10013341
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of Alkaline Phosphatase, Calf Intestinal (CIP) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	<p>Pass</p>

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



Tony Spear-Alfonso
Production Scientist
13 Jun 2018



Michael Tonello
Packaging Quality Control Inspector
10 Jul 2018