

New England Biolabs Certificate of Analysis

Product Name: Alkaline Phosphatase, Calf Intestinal (CIP)
Catalog #: M0290S/L
Concentration: 10,000 units/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 #: 0681608
Assay Date: 08/2016
Expiration Date: 08/2018
Storage Temp: -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 v1.0
Effective Date: 29 Jul 2016

Assay Name/Specification (minimum release criteria)	Lot #0681608
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.	Pass
Exonuclease Activity (Radioactivity Release) - A 50 μl reaction in CutSmart® Buffer containing 1 μg of a mixture of single and double-stranded [³ H] <i>E. coli</i> 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.	Pass
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.	Pass
Protein Purity Assay (SDS-PAGE) - Alkaline Phosphatase, Calf Intestinal (CIP) is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
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.	Pass



Authorized by
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29 Jul 2016



Inspected by
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02 Aug 2016

