

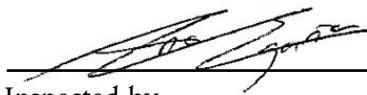
New England Biolabs Certificate of Analysis

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 μ mol of p-Nitrophenyl Phosphate, PNPP in a total reaction volume of 1 ml in 1 minute at 37°C
Lot #: 0721711
Assay Date: 11/2017
Expiration Date: 11/2019
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 v2.0
Effective Date: 17 Nov 2017

Assay Name/Specification (minimum release criteria)	Lot #0721711
Endonuclease Activity (Nicking) - A 50 μ l reaction in CutSmart® Buffer containing 1 μ g 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 μ l reaction in CutSmart® Buffer containing 1 μ g 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 μ l reaction in NEBuffer 4 containing 1 μ g 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
RNase Activity (Extended Digestion) - A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μ l 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
Derek Robinson
17 Nov 2017



Inspected by
Ana Egana
30 Nov 2017

