Applications:
- Removing 5' phosphates from DNA, RNA, rNTPs and dNTPs
- Preparation of templates for 5' end labeling
- Prevention of recircularization of cloning vectors
- Dephosphorylation of serine, threonine and tyrosine residues in proteins

Supplied in: 50 mM KCl, 10 mM Tris-HCl (pH 8.2), 1 mM MgCl₂, 0.1 mM ZnCl₂ and 50% glycerol.

Reagents Supplied with Enzyme:
10X NEBuffer 3.

Reaction Conditions: 1X NEBuffer 3.

CIP is also active in NEBuffers 2 or 4 as well as 1X NEBuffer 3.

Heat Inactivation:
No Heat Inactivation for 30 minutes at 65°C.

RNase Activity:
Incubation of 50 units of CIP with 1 µg RNA Transcript for 4 hours at 37°C resulted in the same banding pattern as a sample with no enzyme.

Physical Purity:
Purified to >95% homogeneity as determined by SDS-PAGE analysis using Coomassie Blue detection.

Endonuclease Activity:
Incubation of 50 units of CIP with 1 µg of φX174 RF I DNA for 4 hours at 37°C in 50 µl reaction buffer resulted in <5% conversion to RF II.

RNase Activity:
Incubation of 50 units of CIP with 1 µg RNA Transcript for 4 hours at 37°C resulted in the same banding pattern as a sample with no enzyme.

Physical Purity:
Purified to > 95% homogeneity as determined by SDS-PAGE analysis using Coomassie Blue detection.

Endonuclease Activity:
Incubation of 50 units of CIP with 1 µg of φX174 RF I DNA for 4 hours at 37°C in 50 µl reaction buffer resulted in <5% conversion to RF II.

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Physical Purity:
Purified to >95% homogeneity as determined by SDS-PAGE analysis using Coomassie Blue detection.

Heat Inactivation:
No

References: