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## Certificate of Analysis

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### Pst I

Catalog No: 2300

**Lot No:** See Product Label

**Package Size:** See Product Label

**Concentration:** See Product Label

**Source:** Providencia stuartii

**Storage Conditions:** Store at -20°C

#### Recognition/Cut Site

5'-CTGCA↓G-3'  
3'-G↑ACGTC-5'

#### Unit Definition

One unit is the amount of enzyme required to completely digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.

#### Reaction Temperature

37°C

#### Heat Inactivation

10 minutes at 80°C

#### Assay Conditions

50 mM Tris-HCl (pH 8.0)  
10 mM MgCl<sub>2</sub>  
50 mM NaCl  
1 µg of Lambda DNA  
Reaction volume of 50 µl

#### Storage Buffer

10 mM Tris-HCl (pH 7.4)  
0.1 mM EDTA  
50 mM NaCl  
1.0 mM DTT  
0.15% (v/v) Triton X-100  
5 µg/ml Poly-L-Lysine  
50% (v/v) Glycerol

#### Quality Control

**Endonuclease:** Incubation of 20, 35, and 50 units of Pst I with 1 µg of Lambda DNA at 37°C for 5 hours (a 250-fold over-digestion) resulted in the same sharp characteristic banding pattern as 4 U/µg in the standard 1 hour assay reaction, as determined by agarose gel electrophoresis. A second incubation using φX-174 DNA as the DNA substrate resulted in the same sharp characteristic banding pattern as 4 U/µg in the standard 1 hour assay reaction, as determined by agarose gel.

**3'-Exonuclease:** Incubation of 5, 10, 20, and 60 units of Pst I with 5 pmoles of Lambda/Taq I fragments (3'-labeled with Klenow exo<sup>-</sup> and [<sup>3</sup>H]dCTP), incubated for 1 hour at 37°C resulted in a ≤0.2 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

**5'-Exonuclease/5'-Phosphatase:** Incubation of 5, 10, 20, and 60 units of Pst I with 0.25 µg of [5'-<sup>32</sup>P]Lambda/Hae III fragments for 1 hour at 37°C resulted in a ≤0.2 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

**Ligation:** Incubation of 4 units of Pst I with 1 µg of Lambda DNA at 37°C produces fragments that ligate with >95% efficiency. The recut efficiency of these ligated fragments is 100%.0%.

For more information or to re-order, please visit [www.chimerx.com](http://www.chimerx.com)