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## Certificate of Analysis

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## Apa I

Catalog No: 2015

**Lot No:** 2010007

**Package Size:** See Product Label

**Concentration:** 10 units/ $\mu$ l

**Source:** *Acetobacter pasteurianus*

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

### Recognition/Cut Site

5'-GGGCC↓C-3'  
3'-C↑CCGGG-5'

### Unit Definition

One unit is the amount of enzyme required to completely digest 1  $\mu$ g of Ad-2 DNA in 1 hour at 30°C.

### Heat Inactivation

10 minutes at 65°C

### Reaction Temperature

30°C

### Reaction Buffer

20 mM Tris-HCl (pH 7.5 @ 37°C)  
50 mM potassium acetate  
10 mM magnesium acetate  
1 mM dithiothreitol (DTT)  
100  $\mu$ g/ml bovine serum albumin\*  
\*supplied separately

### Assay Conditions

20 mM Tris-HCl (pH 7.5 @ 37°C)  
50 mM potassium acetate  
10 mM magnesium acetate  
1 mM dithiothreitol (DTT)  
100  $\mu$ g/ml bovine serum albumin  
1  $\mu$ g Ad-2 DNA  
Incubation time is 1 hour at 30°C  
Reaction volume is 50  $\mu$ l

### Storage Buffer

50 mM Tris-HCl (pH 7.5)  
50 mM KCl  
0.1 mM EDTA  
10 mM  $\beta$ -mercaptoethanol  
200  $\mu$ g/ml bovine serum albumin  
0.1% Triton X-100™  
50% glycerol

### Quality Control

**Non-specific Endonuclease:** 20, 35, and 50 units of Apa I were incubated with Ad-2 DNA for 5 hours at 30°C and compared to a standard 4 Unit, 1 hour assay. A second assay was performed under the same conditions using lambda as the DNA.

**3'-Exonuclease:** 5, 10, 15, 20 and 30 units of Apa I were incubated with [<sup>3</sup>H] labeled 3'-ends of Lambda/Taq I DNA fragments for 1 hour at 30°C.

**5'-Exonuclease/5'-Phosphatase:** 5, 10, 15, 20 and 30 units of Apa I were incubated with [ $\gamma$  - <sup>32</sup>P] labeled 5' - ends of Lambda/Hae III DNA fragments for 1 hour at 30°C.

**Nicking:** 20, 35, and 50 units of Apa I were incubated with pBR322 DNA for 5 hours.

**Ligation/Recut:** 4 units of Apa I per  $\mu$ g of Ad-2 DNA were incubated for 1 hour at 30°C. Resulting fragments were ligated with T4 DNA Ligase and recut with Apa I.

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