



6143 North 60th Street
Milwaukee, WI 53218
www.chimerx.com

Certificate of Analysis

Telephone: (414) 535-9506
Toll Free: (800) 626-7833
Fax: (414) 535-9508
Web Support: chimerx.com/support
Email: info@chimerx.com

Sac I

Catalog No: 2350

Lot No: See Product Label

Package Size: See Product Label

Concentration: See Product Label

Source: *Streptomyces achromogenes*

Storage Conditions: Store at -20°C

Recognition/Cut Site

5'-GAGCT↓C-3'
3'-C↑TCGAG-5'

Unit Definition

One unit is the amount of enzyme required to completely digest 1 µg of Ad-2 DNA in 1 hour in a total reaction volume of 0.05 ml.

Reaction Temperature

37°C

Heat Inactivation

10 minutes at 65°C

Assay Conditions

50 mM Tris-HCl (pH 8.0)

10 mM MgCl₂

50 mM NaCl

1 µg of Ad-2 DNA

Incubation is at 37°C for 1 hour in a reaction volume of 50 µl

Storage Buffer

20 mM Tris-HCl (pH 8.0)

150 mM KCl

500 µg/ml Bovine Serum Albumin

0.1% Triton X-100

50% (v/v) Glycerol

Quality Control

Endonuclease: Incubation of 20, 35, and 50 units of Sac I with 1 µg of Adenovirus-2 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.

Nickase: Incubation of 20, 35, and 50 units of Sac I with 1 µg of φX174 DNA at 37°C for 5 hours (a 250-fold over-digestion) resulted in ≤35% conversion of RF I to RF II and ≤5% to RF III, as determined by agarose gel electrophoresis.

3'-Exonuclease: Incubation of 5, 10, 15, 20, and 30 units of Sac I and 5 pmoles of 3'-ends of lambda/Taq I fragments (3'-labelled with Klenow exo- and [³H]dCTP), incubated for 1 hour at 37°C resulted in ≤0.2 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

5'-Exonuclease: Incubation of 5, 10, 15, 20, and 30 units of Sac I with 0.25 µg 5'-ends of [5'-³²P]lambda/Hae III fragments for 1 hour at 37°C resulted in ≤0.2 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

Ligation/Recut: Incubation of 4 units of Sac I with 1 µg of Ad-2 DNA at 37°C produces fragments that ligate with >95% efficiency. The recut efficiency of these ligated fragments is 100%.

For more information or to re-order, please visit www.chimerx.com