



6143 North 60th Street  
Milwaukee, WI 53218  
[www.chimerx.com](http://www.chimerx.com)

## Certificate of Analysis

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

## Mbo II

Catalog No: 2284

**Lot No:** See Product Label

**Package Size:** See Product Label

**Concentration:** See Product Label

**Source:** Haemophilus aegyptius

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

### Recognition/Cut Site

5'-GAAGA(N)<sub>8</sub>-3'

3'-CTTCT(N)<sub>7</sub>-5'

### Unit Definition

One unit is the amount of enzyme required to completely digest 1 µg of unmethylated lambda DNA in 1 hour in a total reaction volume of 50 µl.

### Reaction Temperature

37°C

### Heat Inactivation

10 minutes at 65°C

### Assay Conditions

50 mM Tris-HCl (pH 8.0)

10 mM MgCl<sub>2</sub>

1 µg of unmethylated lambda DNA

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

### Storage Buffer

10 mM Tris-HCl (pH 7.5)

0.1 mM EDTA

1 mM DTT, 50 mM KCl

0.01% Triton X-100

100 µg/ml Bovine Serum Albumin

50% Glycerol

### Quality Control

**Non-specific Endonuclease:** Incubation of 10, 20, and 30 units of Mbo II with 1 µg of unmethylated lambda DNA at 37°C for 5 hours (a 150-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.

**3'-Exonuclease:** Incubation of 5, 10, and 20 units of Mbo II and 5 pmole of 3'-ends of lambda/Taq I fragments (3'-labelled with Klenow exo<sup>-</sup> and [<sup>3</sup>H]dCTP), incubated for 1 hour at 37°C resulted in ≤0.3 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

### 5'-Exonuclease/5'-Phosphatase:

Incubation of 5, 10, and 20 units of Mbo II with 0.25 µg of 5'-ends of [<sup>5</sup>-<sup>32</sup>P]lambda/Mbo II fragments for 1 hour at 37°C resulted in ≤0.3 slope of %-end label released per unit of enzyme. Reaction volume of 50 µl.

**Ligation/Recut:** Incubation of 4 units of Mbo II with 1 µg of unmethylated lambda DNA at 37°C produces fragments that ligate with ≥30% efficiency. The recut efficiency of these ligated fragments is ≥95%.