Lambda DNA/HindIII Markers

REF G1711 LOT 0000303827

-30°C -10°C 2021-10-20

Conc: 500µg/ml Dispensed Lot#: 0000293864

100µg

For Laboratory Use

Country of Origin USA

Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711-5399 USA

Promega

PEEL HERE

ADG1711 00003038271

Certificate of Analysis

Lambda DNA/HindIII Markers:

Part No.	Size
G171A	100µg

Description: Lambda DNA/HindIII Markers are prepared by digesting Lambda DNA to completion with HindIII followed by heat-inactivation of the enzyme. The DNA fragments are then ethanol-precipitated and resuspended in storage buffer. The eight DNA fragments range in size from 125 to 23,130 base pairs.

Concentration: 0.5mg/ml.

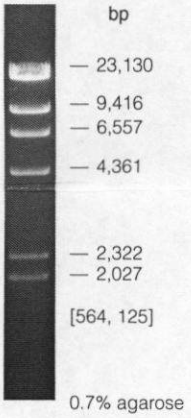
Storage Buffer: Lambda DNA/HindIII Markers are supplied in 10mM Tris-HCl, 10mM NaCl and 1mM EDTA. Final pH 7.5.

Storage Conditions: Store at –20°C. See the expiration date on the product label.

Usage Notes:

1. Concentration gradients may form in frozen products and should be dispersed upon thawing. Mix well prior to use.
2. Due to the reannealing of cohesive ends, an extra band may appear above the 23,130bp fragment while the 23,130 and 4,361bp bands may decrease or disappear. To avoid this annealing, heat the marker at 65°C for 10 minutes in the presence of 1X restriction enzyme buffer, and then immediately chill on ice for 5 minutes before loading onto a gel.

Blue/Orange 6X Loading Dye (G190A): The Blue/Orange 6X Loading Dye supplied with these markers has a composition of 15% Ficoll® 400, 0.03% Bromophenol Blue, 0.03% Xylene Cyanol FF, 0.4% Orange G, 10mM Tris-HCl (pH 7.5) and 50mM EDTA. This dye is used for loading DNA samples into gel electrophoresis wells and tracking migration during electrophoresis. Recommended usage is one part loading dye for five parts DNA solution. The Xylene Cyanol FF migrates at approximately 4kb, Bromophenol Blue at approximately 300bp and Orange G at approximately 50bp in 0.5% to 1.4% agarose gels in 0.5X TBE buffer (1).



Quality Control Assays

Accurate Sizing: Lambda DNA/HindIII Marker is subjected to electrophoresis and visualized on an ethidium bromide-stained agarose gel to confirm the correct banding pattern (size of fragments).

Purity: $A_{260}/A_{250} \geq 1.05$; $A_{260}/A_{280} \geq 1.80$.

Nuclease Assay: Lambda DNA/HindIII Marker is incubated in 1X restriction enzyme buffer for 16 hours at 37°C. Following incubation, the marker is subjected to electrophoresis and visualized on an ethidium bromide-stained agarose gel to confirm the absence of visible degradation.

Reference

1. Sambrook, J., Fritsch, E.F. and Maniatis, T. (1989) *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.

Signed by:

R. Wheeler, Quality Assurance

Promega

Promega Corporation

2800 Woods Hollow Road	
Madison, WI 53711-5399	USA
Telephone	608-274-4330
Toll Free	800-356-9526
Fax	608-277-2516
Internet	www.promega.com

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