

## Certificate of Analysis

### $\phi$ X174 DNA/HaeIII Markers:

Part No.	Size
G176A	50 $\mu$ g

**Source:**  $\phi$ X174 DNA/HaeIII Markers are prepared by digesting  $\phi$ X174 DNA to completion with HaeIII, extracting with phenol and precipitating with ethanol. The eleven fragments range in size from 72 to 1,353 base pairs.

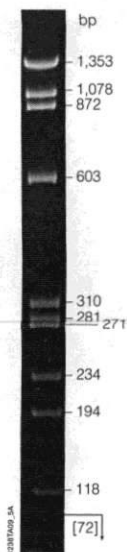
**Storage Buffer:**  $\phi$ X174 DNA/HaeIII Markers are supplied in 10mM Tris-HCl (pH 7.4), 1mM EDTA.

**Concentration:** 1.0mg/ml.

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

**Usage Note:** Concentration gradients may form in frozen products and should be dispersed upon thawing. Mix well prior to use.

**Blue/Orange 6X Loading Dye (G190A):** The Blue/Orange 6X Loading Dye supplied with these markers has a composition of 15% Ficoll<sup>®</sup> 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 every 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 (1).



## Quality Control Assays

**Accurate Sizing:** One half microgram of  $\phi$ X174 DNA/HaeIII Markers is mixed with 1X TE buffer and subjected to electrophoresis in a single lane on a 8% polyacrylamide gel. The  $\phi$ X174 DNA/HaeIII Markers must show the expected pattern when compared with a previous lot.

**Nuclease Assay:** To test for nuclease contamination, one half microgram of  $\phi$ X174 DNA/HaeIII Markers is incubated in 1X restriction enzyme buffer for 16 hours at 37°C. Following incubation, the marker is subjected to electrophoresis on a 1% agarose gel to verify 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

## $\phi$ X174 DNA/HaeIII Markers

REF: G1761

LOT: 0000253002

-30°C  
-10°C  
Conc: 1 $\mu$ g/ $\mu$ l  
50 $\mu$ g

2018-11-11  
Dispensed Lot#: 0000213837

For Laboratory Use

Country of Origin: USA

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ADG1761 00002530023

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HERE



# Promega

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