

# Lambda DNA/HindIII Marker, 2, ready-to-use

Catalog Number SM0103

Pub. No. MAN0012988 Rev. C.00



**WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from [thermofisher.com/support](https://www.thermofisher.com/support).

## Contents and storage

| Cat. No. | Contents                                      | Amount   | Storage  |
|----------|---|--|--|
| SM0103   | Lambda DNA/HindIII Marker, 2,<br>ready-to-use | 250 (5 x 50) µg (for 500 applications),<br>0.1 µg/µL | at room temperature or at 4 °C for<br>periods up to 6 months. For longer<br>periods store at -20 °C. |
|          | 6X DNA Loading Dye                            | 2 x 1 mL   |  |

## Description

Lambda DNA/HindIII Marker, 2 is premixed with DNA Loading Dye at a final DNA concentration of 0.1 µg/µL and can be directly applied onto an agarose gel.

The DNA marker contains the following 8 discrete fragments (in base pairs): 23130\*, 9416, 6557, 4361\*, 2322, 2027, 564, 125.

## Storage and Loading Buffer

10 mM Tris-HCl (pH 7.6), 10 mM EDTA, 0.005 % bromophenol blue, 0.005 % xylene cyanol FF and 10 % glycerol.

## 6X DNA Loading Dye

10 mM Tris-HCl (pH 7.6), 0.03 % bromophenol blue, 0.03 % xylene cyanol FF, 60 % glycerol and 60 mM EDTA.

## Protocol for Loading

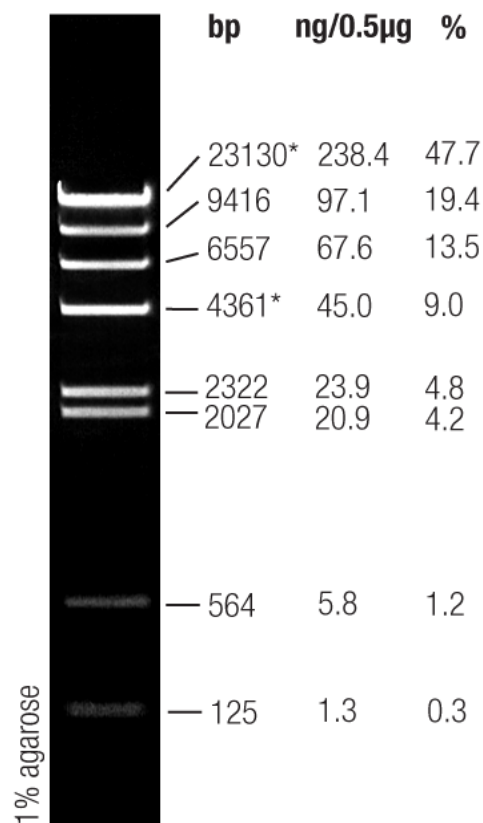
**Step 1:** Mix gently

**Step 2:** Load 1 µL per 1 mm gel lane.

## Recommendations

- Heat for 5 min at 65 °C and then cool on ice for 3 min.
- Dilute your DNA sample with the 6X DNA Loading Dye (#R0611, supplied with the ladder): mix 1 volume of the dye solution with 5 volumes of the DNA sample;
- For DNA band visualization with SYBR™ Green and other intercalating dyes, do not add the dyes into the sample, use gel staining after electrophoresis or include dyes into agarose gel to avoid aberrant DNA migration.
- **Important note:** For DNA bands visualization with GelRed™ use gel staining after electrophoresis to avoid aberrant DNA migration.

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0.5 µg/lane, 8 cm length gel,  
1X TAE, 7 V/cm, 45 min

\* The cohesive ends (the 12 nt *cos* site of bacteriophage lambda) of fragments 23130 bp and 4361 bp may anneal and form an additional band at 27491 bp. These fragments can be separated by heating at 65 °C for 5 min and then cooling on ice for 3 min.

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Thermo Fisher Scientific Baltics UAB | V.A. Graiciuno 8, LT-02241 Vilnius, Lithuania

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