# GeneRuler 100 bp Plus DNA Ladder, ready-to-use

**Catalog Number** SM0323, SM0324

**Pub. No.** MAN0013010 **Rev.** E00

**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.**

## Contents and storage

| Cat. No. | Contents | Amount | Storage |
|---|---|---|---|
| **SM0323** | GeneRuler 100 bp Plus DNA Ladder, ready-to-use | 50 µg (for 100 applications), 0.1 µg/µL | at room temperature or at 4 °C for periods up to 24 months.* |
| | 6X TriTrack DNA Loading Dye | 1 mL | |
| **SM0324** | GeneRuler 100 bp Plus DNA Ladder, ready-to-use | 250 µg (5 x 50) µg (for 500 applications), 0.1 µg/µL | |
| | 6X TriTrack DNA Loading Dye | 2 x 1 mL | |

**For longer periods store at -20 °C.*

## Description

Thermo Scientific™ GeneRuler™ 100 bp Plus DNA Ladder, ready-to-use, is designed for sizing and approximate quantification of wide range double-stranded DNA on agarose and polyacrylamide gels. The ladder is composed of fourteen chromatography-purified individual DNA fragments (in base pairs): 3000, 2000, 1500, 1200, **1000**, 900, 800, 700, 600, **500**, 400, 300, 200, 100. It contains two reference bands (1000 and 500 bp) for easy orientation.
The ladder is ready to use – it is premixed with 6X TriTrack DNA Loading Dye for direct loading on gel.

## Storage and Loading Buffer

10 mM Tris-HCl (pH 7.6), 10 mM EDTA, 0.005 % bromophenol blue, 0.005 % xylene cyanol FF, 0.025 % orange G and 10 % glycerol.

## 6X TriTrack DNA Loading Dye

10 mM Tris-HCl (pH 7.6), 0.03 % bromophenol blue, 0.03 % xylene cyanol FF, 0.15 % orange G, 60 % glycerol and 60 mM EDTA.

## Protocol for Loading

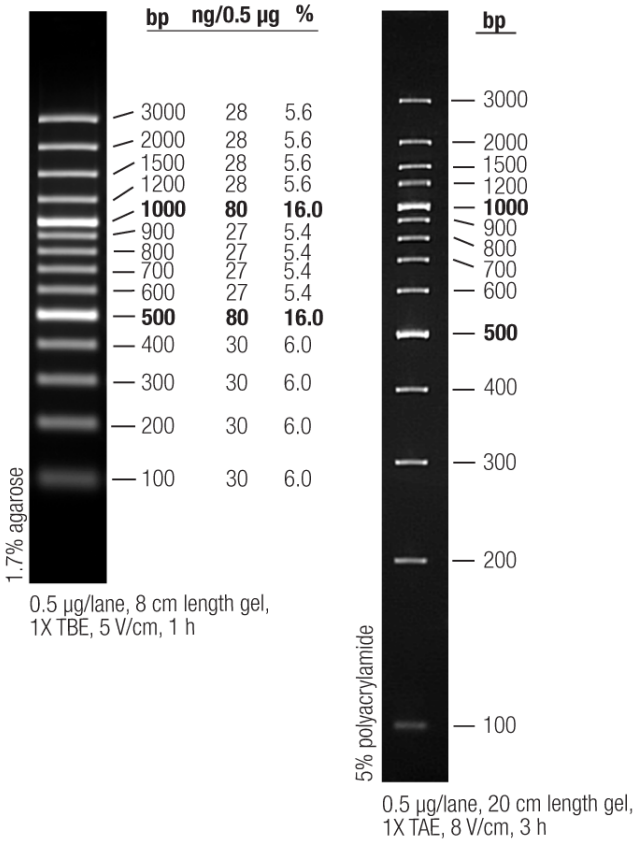
**Step 1:** Mix gently

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

## Recommendations

- Do not heat before loading.
- Dilute your DNA sample with the 6X TriTrack DNA Loading Dye (#R1161, supplied with the ladder): mix 1 volume of the dye solution with 5 volumes of the DNA sample;
- Load the same volumes of the DNA sample and the DNA ladder;
- For quantification, adjust the concentration of the sample to equalize it approximately with the amount of DNA in the nearest band of the ladder.
- 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.

## GeneRuler 100 bp Plus DNA Ladder, ready-to-use




**Revision history:** Pub. No. MAN0013010

| Revision | Date | Description |
|---|---|---|
| E00 | 2025-04-08 | Extended storage at room temperature to 24 months |

## Limited product warranty

Life Technologies Corporation and/or it affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale at **www.thermofisher.com/us/en/home/global/terms-and-conditions.html.** If you have any questions, please contact Life Technologies at **www.thermofisher.com/support**.

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