

GeneRuler 100 bp DNA Ladder, ready-to-use

Catalog Number SM0243, SM0244

Pub. No. MAN0012997 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](https://www.thermofisher.com/support).

Contents and storage

Cat. No.	Contents	Amount	Storage
SM0243	GeneRuler 100 bp 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	
SM0244	GeneRuler 100 bp DNA Ladder, ready-to-use	250 (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 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 ten chromatography-purified individual DNA fragments (in base pairs): 1000, 900, 800, 700, 600, **500**, 400, 300, 200, 100. It contains one reference band (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

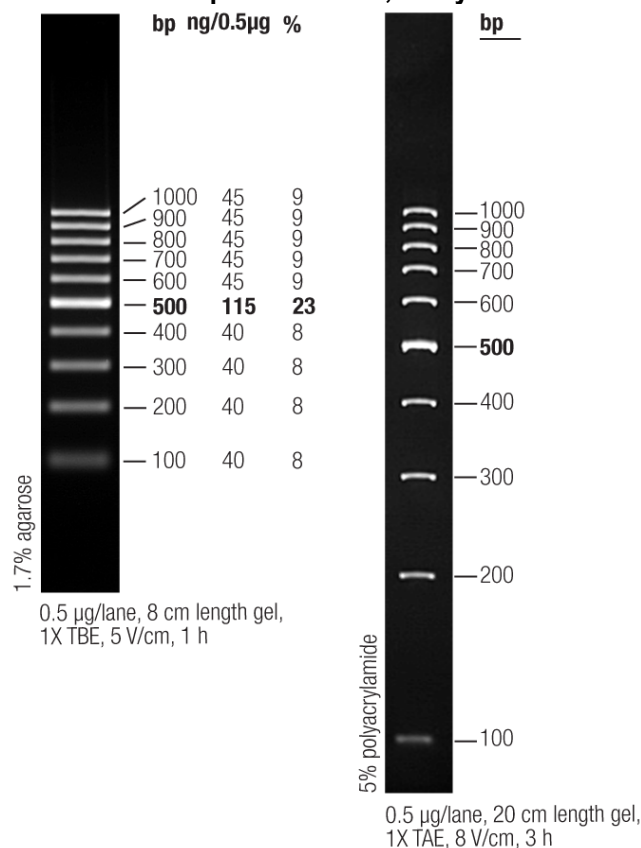
Step 1: Mix gently

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.

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Revision history: Pub. No. MAN0012997

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

Limited product warranty

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For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

The information in this guide is subject to change without notice.

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