

GeneRuler 1 kb Plus DNA Ladder, ready-to-use

Catalog Number SM1333, SM1334

Pub. No. MAN0013050 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
SM1333	GeneRuler 1 kb Plus DNA Ladder, ready-to-use	250 (5 x 50) µg (for 500 applications), 0.1 µg/µL	at room temperature or at 4 °C for periods up to 24 months. *
	6X TriTrack DNA Loading Dye	2 x 1 mL	
SM1334	GeneRuler 1 kb Plus DNA Ladder, ready-to-use	50 µg (for 100 applications), 0.1 µg/µL	
	6X TriTrack DNA Loading Dye	1 mL	

*For longer periods store at -20 °C.

Description

Thermo Scientific™ GeneRuler™ 1 kb Plus DNA Ladder, ready-to-use, is designed for sizing and quantification of DNA fragments in agarose gels. The ladder is composed of fifteen chromatography-purified individual DNA fragments (in base pairs): 20000, 10000, 7000, **5000**, 4000, 3000, 2000, **1500**, 1000, 700, **500**, 400, 300, 200, 75. It contains three reference bands (5000, 1500 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 gels.

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

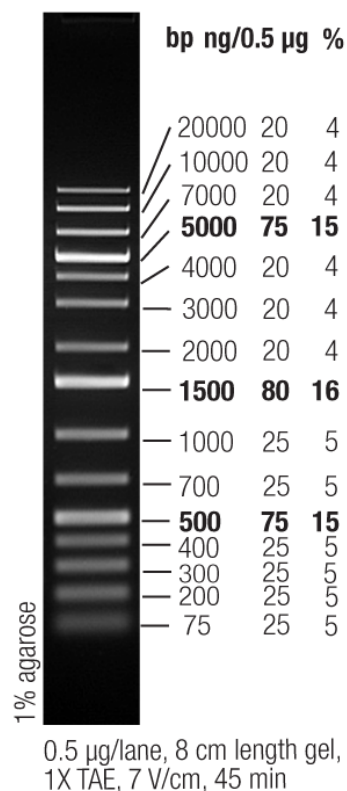
Step 1: Mix gently

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 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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Note. Formation of diffused bands of small DNA fragments is a feature of agarose gel electrophoresis.

Revision history: Pub. No. MAN0013050

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

Limited product warranty

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Thermo Fisher Scientific Baltics UAB | V.A. Graiciuno 8, LT-02241 Vilnius, Lithuania
For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

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