

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.

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

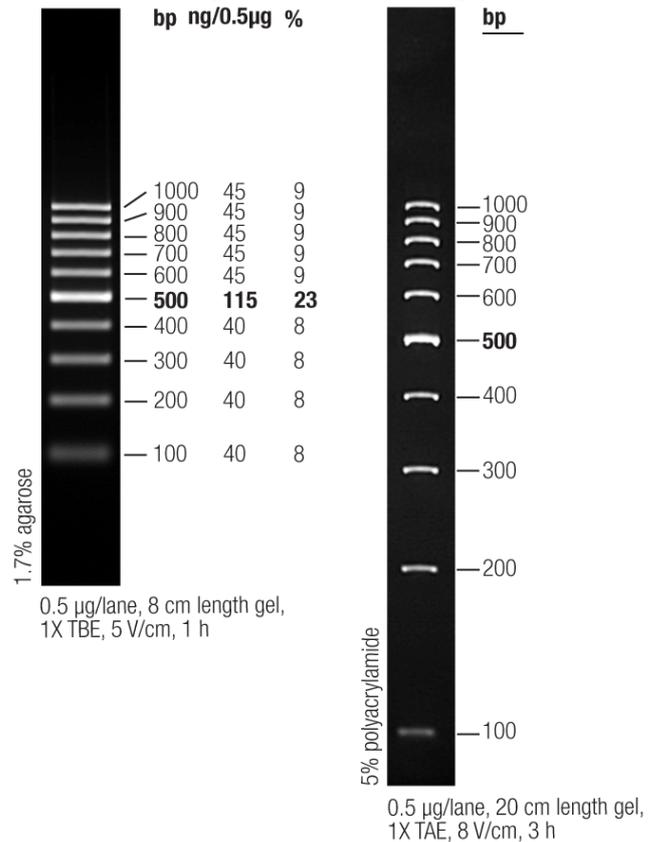
Step 1: Mix gently

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.

GeneRuler 100 bp DNA Ladder, ready-to-use



Revision history: Pub. No. MAN0012997

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

Limited product warranty

Life Technologies Corporation and/or its 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.



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.

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

DISCLAIMER: TO THE EXTENT ALLOWED BY LAW, THERMO FISHER SCIENTIFIC INC. AND/OR ITS AFFILIATE(S) WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, MULTIPLE, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM THIS DOCUMENT, INCLUDING YOUR USE OF IT.

Important Licensing Information: These products may be covered by one or more Limited Use Label Licenses. By use of this product, you accept the terms and conditions of all applicable Limited Use Label Licenses.

©2025 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. GelRed is a registered trademark of Biotium Inc.

thermofisher.com/support | thermofisher.com/askaquestion

thermofisher.com

08 April 2025

ThermoFisher
SCIENTIFIC