

GeneRuler Express DNA Ladder

Catalog Number SM1551, SM1552

Pub. No. MAN0013073 Rev. D.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.

Contents and storage

Cat. No.	Contents	Amount	Storage
SM1551	GeneRuler Express DNA Ladder	50 µg (for 100 applications), 0.5 µg/µL	-25 °C to -15 °C
	6X TriTrack DNA Loading Dye	1 mL	
SM1552	GeneRuler Express DNA Ladder	250 (5 x 50) µg (for 500 applications), 0.5 µg/µL	
	6X TriTrack DNA Loading Dye	2 x 1 mL	

Description

Thermo Scientific™ GeneRuler™ Express DNA Ladder is designed for fast sizing and quantification of DNA fragments under a wide range of electrophoresis conditions in agarose gels. The band pattern is not affected by the composition of electrophoresis buffer, voltage and gel percentage. The ladder bands are easily separated in 5-10 min at high voltage.

The ladder is a mixture of nine chromatography-purified individual DNA fragments (in base pairs): 5000, 3000, 2000, **1500**, 1000, 750, **500**, 300, 100. It contains two reference bands (1500 and 500 bp) for easy orientation.

The DNA ladder is dissolved in TE buffer.

Storage Buffer

10 mM Tris-HCl (pH 7.6), 1 mM EDTA.

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

Loading mixture for the 5 mm agarose gel lane*:

DNA ladder	1 µL
6X TriTrack DNA Loading Dye	1 µL
Deionized water	4 µL
	6 µL

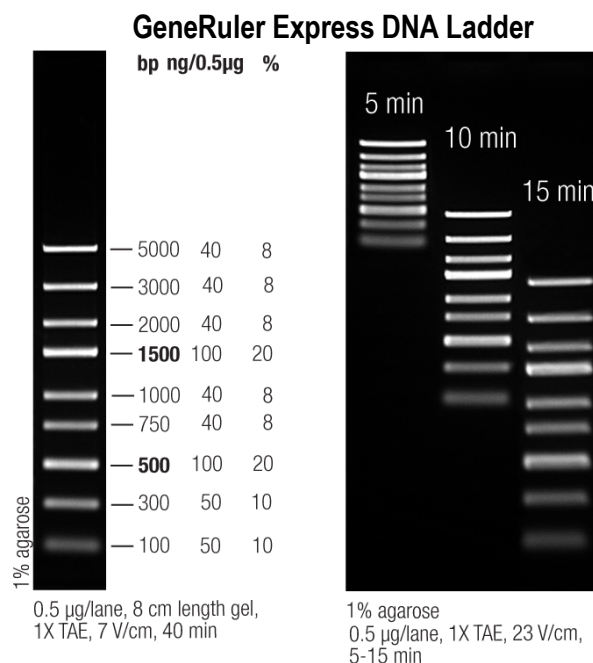
Step 1: Mix gently

Step 2: Load on the gel

*For gels with other lane widths, the components of the mixture should be scaled either up or down. Use 0.2 µL (0.1 µg) of DNA ladder per 1 mm of 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 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.



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.

©2019 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

30 October 2019

ThermoFisher
SCIENTIFIC