

PRODUCT INFORMATION

**Thermo Scientific
GeneRuler 1 kb
Plus DNA Ladder,
ready-to-use**

#SM1333 **250 (5 x 50) µg**
(for 500 applications)

Lot: —

Concentration: 0.1 µg/µL
Supplied with: 2 x 1 mL 6X DNA Loading Dye

**Store: at room temperature or at 4°C for
up to 6 months. For longer periods store at -20°C.**

In total 7 vials.

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 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 and 10% glycerol.

6X DNA Loading Dye

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

CERTIFICATE OF ANALYSIS

Well-defined bands are formed during agarose gel electrophoresis.

The absence of nucleases is confirmed by a direct nuclease activity assay.

Quality authorized by:

 Jurgita Zilinskiene

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 DNA Loading Dye (#R0611, 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.

Important Note

For DNA band visualization with SYBR[®] Green, GelRed 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.

NOTICE TO PURCHASER: LIMITED LICENSE

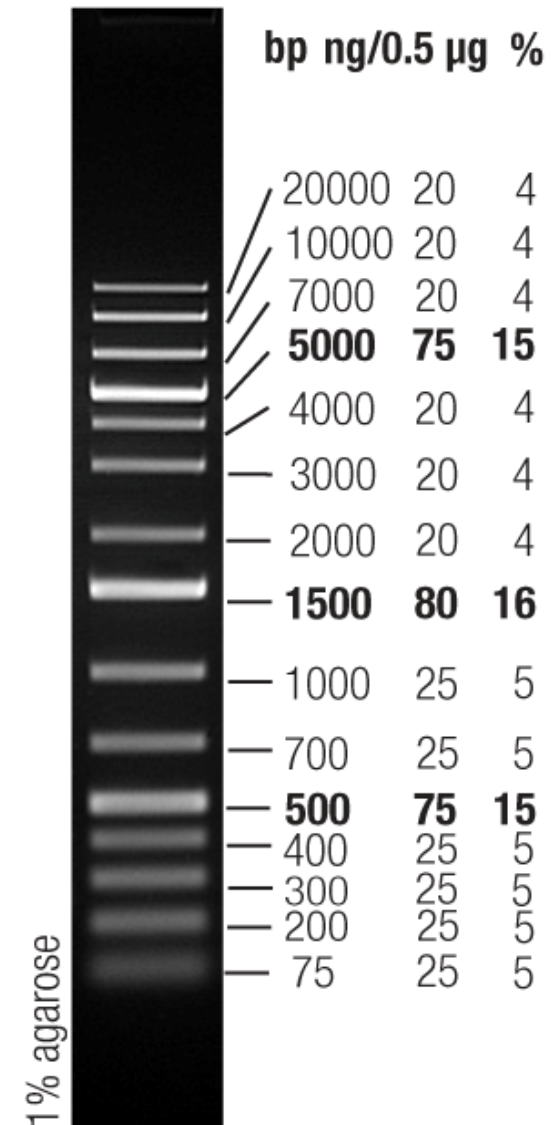
This product or its use is covered by at least one claim of U.S. Patent Nos. 5,834,201, 6,680,378, and/or 7,132,520 owned by Invitrogen Corporation. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product in internal research conducted by the buyer. The buyer cannot use this product or materials made by the employment of this product for Commercial Purposes. Commercial Purposes means any activity for consideration and may include, but is not limited to: (1) use of the product in manufacturing; (2) use of the product to provide a service, information, or data; (3) use of the product for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product, whether or not the product is resold for use in research. Further information on purchasing licenses under the above patents may be obtained by contacting the Business Development Department, Invitrogen Corporation, 5791 Van Allen Way, Carlsbad, CA 92008. Email: outlicensing@invitrogen.com.

PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively *for research purposes and in vitro use only*. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to www.thermoscientific.com/onebio for Material Safety Data Sheet of the product.

© 2012 Thermo Fisher Scientific Inc. All rights reserved. SYBR is a registered trademark of Molecular Probes, Inc. All other trademarks are the property of Thermo Fisher Scientific Inc. and its subsidiaries.

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



0.5 μg /lane, 8 cm length gel,
1X TAE, 7 V/cm, 45 min

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