

PRODUCT INFORMATION

**Thermo Scientific
GeneRuler 100 bp
Plus DNA Ladder**

#SM0321 **50 µg**
(for 100 applications)

Lot: —

Concentration: 0.5 µg/µL
Supplied with: 1 mL 6X DNA Loading Dye

Store at -20°C

In total 2 vials.

www.thermoscientific.com/onebio

Description

Thermo Scientific GeneRuler 100bp Plus DNA Ladder is designed for sizing and approximate quantification of wide range double-stranded DNA on agarose and polyacrylamide gels. The ladder is composed of fourteen chromatography-purified individual DNA fragments (in base pairs): 3000, 2000, 1500, 1200, **1000**, 900, 800, 700, 600, **500**, 400, 300, 200, 100. It contains two reference bands (1000 and 500 bp) for easy orientation. The ladder is dissolved in TE buffer.

Storage Buffer

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

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 DNA concentration is determined spectrophotometrically.

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

Quality authorized by:

 Jurgita Zilinskiene

Protocol for Loading

Loading mixture for the 5 mm gel lane*:

Components	Gels	
	Agarose	Polyacrylamide
DNA ladder (0.5-1 µg)	1-2 µL	1-2 µL
6X DNA Loading Dye	1 µL	0.5 µL
Deionized water	4-3 µL	1.5-0.5 µL
	6 µL	3 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 0.2-0.4 µL (0.1-0.2 µg) of DNA ladder per 1 mm of lane.

Recommendations

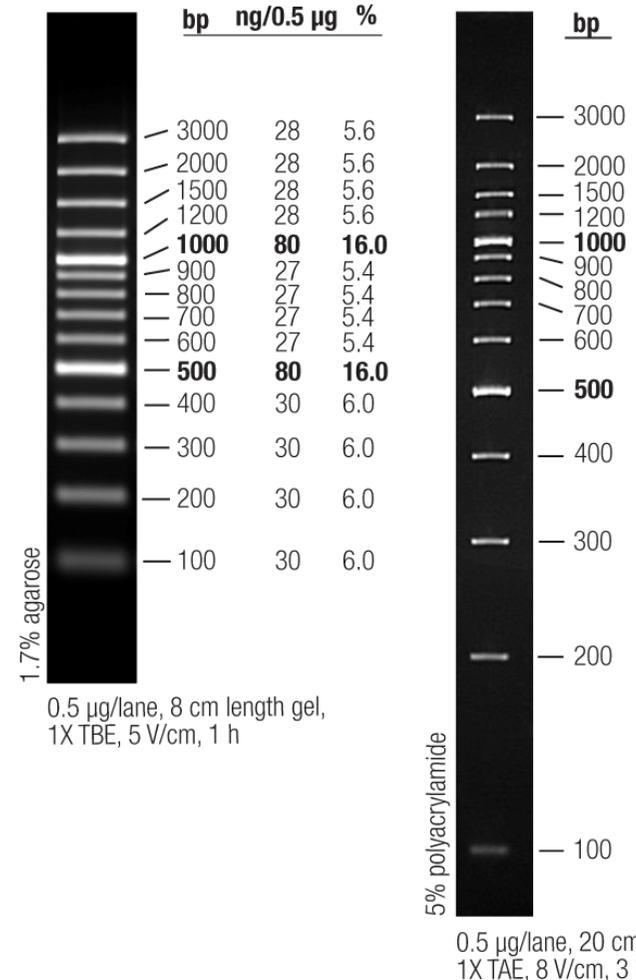
- Do not heat before loading.
- Dilute your DNA sample with the 6X DNA Loading Dye (#R0611, supplied with the ladder): mix 1 volume of the dye solution with 5 volumes of the DNA sample;
- Load the same volumes of the DNA sample and the DNA ladder;
- For quantification, adjust the concentration of the sample to equalize it approximately with the amount of DNA in the nearest band of the ladder.
- For DNA band visualization with SYBR® Green, 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.

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.

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GeneRuler 100 bp Plus DNA Ladder



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