

PRODUCT INFORMATION

Thermo Scientific GeneRuler DNA Ladder Mix

Pub. No. MAN0013012

Rev. Date 12 February 2018 (Rev. C.00)

Components	#SM0331	#SM0332
GeneRuler DNA Ladder Mix, 0.5 µg/µL	250 (5 x 50) µg (for 500 applications)	1250 (25 x 50) µg (for 2500 applications)
6X TriTrack DNA Loading Dye	2 × 1 mL	10 × 1 mL

Store at -25°C to -15°C

www.thermofisher.com

For Research Use Only. Not for use in diagnostic procedures.

Description

Thermo Scientific™ GeneRuler™ DNA Ladder Mix is designed for sizing and approximate quantification of wide range double-stranded DNA on agarose gel. The ladder is composed of 21 chromatography-purified DNA fragments (in base pairs): 10000, 8000, 6000, 5000, 4000, 3500, **3000**, 2500, 2000, 1500, 1200, **1000**, 900, 800, 700, 600, **500**, 400, 300, 200, and 100. It contains three reference bands (3000, 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 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 μ L
6X TriTrack DNA Loading Dye	1 μ L
Deionized water	4 μ L
	<hr/>
	6 μ L

Step 1: Mix gently

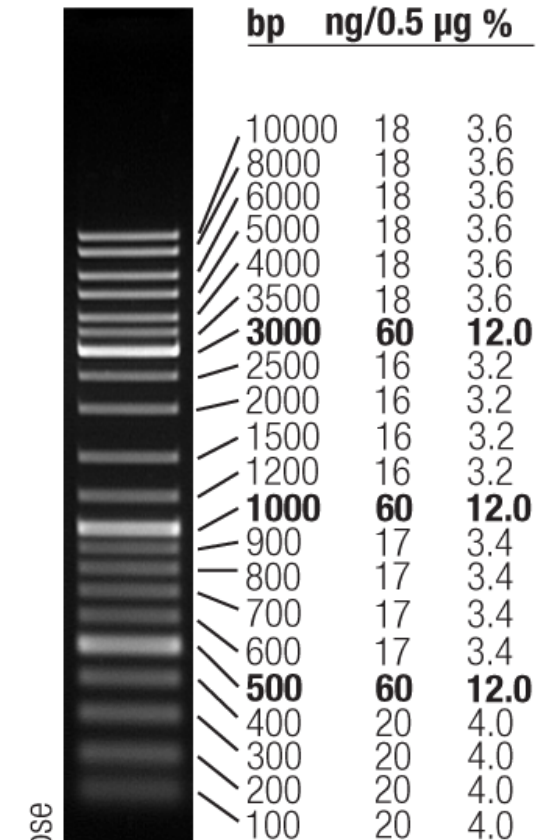
Step 2: Load on the gel

* For gels with other lane widths, the components of the mixture should be scaled either up or down. Use 0.2 μ L (0.1 μ g) of DNA Ladder per 1mm 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 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 DNA Ladder Mix



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

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