FISHER MOLECULAR BIOLOGY

100bp DNA Ladder (RTU) for Gel Red Nucleic Acid Stain

Cat.# **FS-MW-600-RT**

Size: 2 VIALS 500 ul (50 gel lanes)

Vial A: 100 bp DNA Ladder (RTU) 20 ng/mL in 1 X DNA Loading Buffer Blue **Vial B:** 6X Loading Buffer Blue

The **Ready-to-Use DNA Ladders** are supplied in a ready-to-load format.

For agarose gel electrophoresis the ladders can be loaded directly on a gel, 5-10 uL per well gives the optimal loading for a GelRed precast gel (100-200 ng/lane).
It is not necessary to add anything to the ladder before use.

Product Description: 100 bp DNA Ladder is suitable for sizing linear double-stranded DNA fragments from 100 bp to 1500 bp. The ladder consists of 11 bands that are generated from PCR and restriction enzyme digestion of double-stranded DNA. The DNA is purified by phenol extraction, and equilibrated to 10 mM Tris-HCl (pH 8.0) and 1 mM EDTA. The 500 bp and 1,500 bp bands have increased intensity to provide internal orientation.

Formulation:
Ready-to-Use Ladders are provided pre-diluted in 1X loading buffer. Approximate amounts of DNA per band per 100 ng ladder are listed in Figure 1 for reference, and are not intended for quantification of unknown DNA samples.

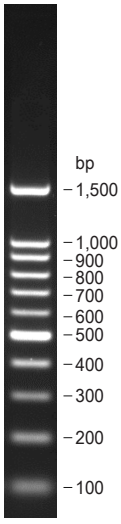
The loading buffer provided contains density agents and two blue electrophoresis tracking dyes that run at approximately 1.5 kb and 100 bp in a 1% agarose gel.

Protocol
The Ready-to-Use DNA Ladders are supplied in a ready-to-load format at an optimal concentration for use on GelRed® precast gels. There is no need to mix with 6X loading buffer prior to loading onto a gel. For agarose gel electrophoresis, load 100-200 ng of DNA ladder (5-10 uL) per 5 mm lane.

The 6X DNA Loading Buffer (Blue) is included for your convenience to add to your other DNA samples before electrophoresis. Mix 1 volume of 6X gel loading buffer with 5 volumes of DNA sample for a final concentration of 1X gel loading buffer.

Storage: Store at 4°C for 6 months or at -20°C for 24 months.

B. 100 bp



ng/100 ng
100 bp Ladder

bp	ng
1,500	14.5
1,000	10
900	8
800	8
700	5.5
600	6
500	17
400	8
300	7
200	8
100	8

Figure 1. 100 ng of 1 kb DNA Ladder (A) or 100 bp DNA Ladder (B) were run on a 1% agarose/TBE/1X GelRed gel in 1X TBE at 100 volts for 90 minutes. Gels were imaged using a UVP GelDoc-It imaging system with ethidium bromide filter and 1 second exposure time. Fragment sizes in base pairs (bp) are shown next to each band. Approximate mass per band is shown for 100 ng DNA ladder in tables at right.

For Research Use Only

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