

**1 KB DNA Ladder (RTU)
for Gel Red Nucleic Acid Stain**

CAT.# FS-MW-500-RT

Size: 2 VIALS OF 500 ul EACH (50 gel lanes)

Vial A: 1 KB DNA Ladder - 20 ng/mL in 1 X DNA Loading Buffer (blue)

Vial B: 6X DNA Loading Buffer (blue)

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:

The 1 KB DNA Ladder is suitable for sizing linear double-stranded DNA fragments from 250 bp to 10 kb. The 1 kb and 3 kb bands have increased intensity to provide internal orientation.

The ladders 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. 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 200 bp in a 1% agarose gel.

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

Storage Buffer: 10 mM Tris-HCl (pH 8.0), 1 mM EDTA

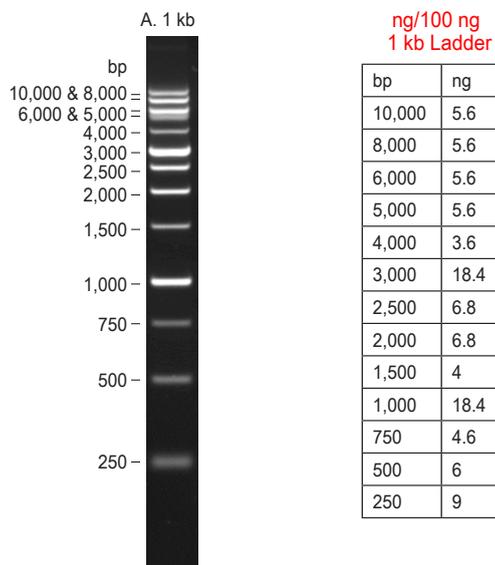
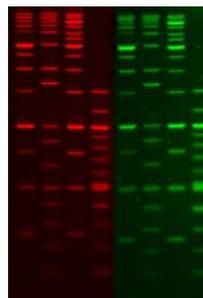


Figure 1. 100 ng of 1 kb DNA Ladder (A) or 100 bp DNA Ladder (B) were run on a 1% agarose/TBE/1X GelRed gel in 1X TBE at 100 volts for 90 minutes. Gels were imaged using a UVP GelDoc-It imaging system with ethidium bromide filter and 1 second exposure time. Fragment sizes in base pairs (bp) are shown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



Left: GelRed in precast gel staining using 1% agarose gel in TBE buffer.
Right: GelGreen in post gel staining using 1% agarose gel in TBE buffer.
Two-fold serial dilutions of 1 kb Plus DNA Ladder were loaded onto each gel in 4 lanes in the amounts of 200ng, 100ng, 50ng and 25ng, respectively, from left to right.