

Product Information

1 kb DNA Ladder in TE Buffer 100 bp DNA Ladder in TE Buffer

Components

| Cat. No. | Product | Component | Size |
|----------|--------------------------------|---|----------------|
| 31039 | 1 kb DNA Ladder in TE Buffer | 31039A 1 kb DNA ladder, 100 ng/uL in 10 mM Tris pH 7.5, 1 mM EDTA | 300 uL (30 ug) |
| | | 99962 6X Loading Buffer | 1.5 mL |
| 31040 | 100 bp DNA Ladder in TE Buffer | 31040A 100 bp DNA ladder, 100 ng/uL in 10 mM Tris pH 7.5, 1 mM EDTA | 300 uL (30 ug) |
| | | 99962 6X Loading Buffer (1.5 mL) | 1.5 mL |

Storage

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

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, 3 kb, and 6 kb bands contain more DNA to provide internal orientation.

The 100 bp DNA Ladder is suitable for sizing linear double-stranded DNA fragments from 100 bp to 1000 bp. The 500 bp band contains more DNA to provide internal orientation.

The ladders are composed of chromatography-purified DNA fragments dissolved in TE buffer. Fragment sizes in base pairs (bp) and approximate amounts of DNA per band per uL (100 ng) ladder are shown in Figure 1.

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.

Biotium also offers Ready-to-Use 1 kb DNA Ladder (catalog no. 31022) and Ready-to-Use 100 bp DNA Ladder (catalog no. 31032). Ready-to-Use DNA Ladders are supplied pre-diluted in 1X loading buffer at the optimal concentration for loading on agarose gels containing Biotium's GelRed® or GelGreen® Nucleic Acid Gel Stains (see related products). Please note that the Ready-to-Use Ladders contain a different assortment of band sizes than the DNA Ladders in TE Buffer (product details can be found at www.biotium.com).

Protocol

For agarose gel electrophoresis, add 6X loading buffer to the ladder at a ratio of 1 uL per 5 uL (final loading buffer concentration is 1X). Load 100-200 ng of DNA ladder per 5 mm lane. The 6X loading buffer can also be used to prepare your other DNA samples for electrophoresis.

Please visit our website at www.biotium.com for information on our life science research products, including environmentally friendly EvaGreen® qPCR master mixes, DNA quantitation kits, fluorescent CF® dye antibody conjugates and reactive dyes, apoptosis reagents, fluorescent probes, and kits for cell biology research.

Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use.

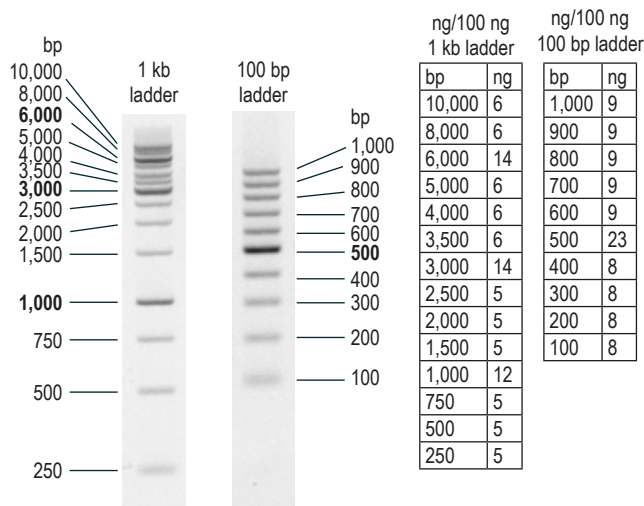


Figure 1. 200 ng of 1 kb DNA Ladder or 100 bp DNA Ladder were run on 1% agarose/TBE gels containing 1X GelRed® Nucleic Acid Gel Stain in 1X TBE at 5 V/cm for 90 minutes. Gels were imaged using a UVP GelDoc-It imaging system with ethidium bromide filter (inverted black and white images are shown). Fragment sizes in base pairs (bp) are shown next to each band, and approximate mass per band per uL (100 ng) ladder is listed in the tables at right.

Related Products

| Catalog number | Product Description |
|----------------|---|
| 99962-1 | 6X DNA Loading Buffer (Blue) |
| 31022 | Ready-to-Use 1 kb DNA Ladder |
| 31032 | Ready-to-Use 100 bp DNA Ladder |
| 41001 | GelRed® Nucleic Acid Gel Stain, 3X in water |
| 41003 | GelRed® Nucleic Acid Gel Stain, 10,000X in water |
| 41005 | GelGreen® Nucleic Acid Gel Stain, 10,000X in water |
| 41009 | 6X GelRed® Prestain Loading Buffer with Blue Tracking Dyes |
| 41010 | 6X GelRed® Prestain Loading Buffer with Orange Tracking Dye |
| 41008 | PAGE GelRed® Nucleic Acid Gel Stain, 10,000X in water |
| 41020 | DNAzure® Blue Nucleic Acid Gel Stain, 100X |
| E90003 | Gel-Bright™ LED Gel Illuminator |
| 41028 | Agarose LE, Ultra-pure Molecular Biology Grade |
| 41029 | GelRed® Agarose LE |
| 41039 | GelGreen® Agarose LE |
| 41006 | TBE, 5X |
| 22007 | Activated Charcoal Decontamination Bags |
| 31000 | EvaGreen® dye, 20X in water |
| 31045 | Forget-Me-Not™ EvaGreen® qPCR Master Mix |
| 31042 | Forget-Me-Not™ EvaGreen® qPCR Master Mix (2-Color Tracking) |
| 31044 | Forget-Me-Not™ Universal Probe qPCR Master Mix |
| 31028 | AccuClear® Ultra High Sensitivity dsDNA Quantitation Kit |
| 31066 | AccuGreen™ High Sensitivity dsDNA Quantitation Kit (for Qubit®) |
| 31069 | AccuGreen™ Broad Range dsDNA Quantitation Kit (for Qubit®) |