



## TrackIt™ 1 Kb Plus DNA Ladder

Cat. No. 10488-085

Size: 100 applications

Conc. 0.1 µg/µl

Store at room temperature

### Introduction

The TrackIt™ 1 Kb Plus DNA Ladder is suitable for sizing linear double-stranded DNA fragments from 100 bp-12 kb. The ladder is prepared from a plasmid containing repeats of a 1000 bp DNA fragment. The 1650 bp band is generated from pUC and all bands < 1000 bp are from lambda DNA.

The TrackIt™ 1 Kb Plus DNA Ladder is formulated with unique tracking dyes, Xylene Cyanol FF (XCFF) and tartrazine, that allow you to visually track DNA migration during electrophoresis and also indicate when maximum resolution is achieved. The tracking dyes do not obscure the visualization of DNA bands in the ladder as the dyes run outside the limits of most DNA bands in the ladder.

The important features of the ladder are listed below:

- Consists of 12 bands in 1000 bp increments ranging in size from 1-12 kb, a 1650 bp fragment, and vector DNA fragments from 100-850 bp
- Orientation doublet at 1650 bp and 2000 bp for easy reference
- Formulated with unique tracking dyes, XCFF and tartrazine
- Designed for use with E-Gel® agarose gels and TBE/TAE agarose gels
- Supplied in a ready-to-load format
- Visualized with ethidium bromide or SYBR® Green staining

### Specifications

Storage Buffer: 10 mM Tris-HCl, pH 7.5; 10 mM EDTA, pH 8.0;  
0.06% XCFF; 0.6% tartrazine; 5% glycerol; 5 mM NaCl

Storage: Store at room temperature

Stability: 6 months at room temperature

Part No. 10488085.pps

Rev. Date: 17 Nov 2003

This product is distributed for laboratory research only. CAUTION: Not for diagnostic use. The safety and efficacy of this product in diagnostic or other clinical uses has not been established.

For technical questions about this product, call the Invitrogen Tech-Line® U.S.A. 800 955 6288

## Directions

The TrackIt™ 1 Kb Plus DNA Ladder is supplied in a ready-to-load format. **There is no need to heat the ladder prior to loading.**

**Note:** The TrackIt™ 1 Kb Plus DNA Ladder is not recommended for use with polyacrylamide gels and is not designed for quantitation.

1. Vortex the ladder gently to ensure the solution is homogenous.
2. Load the ladder using the loading volumes listed below to obtain the best results.

### **TAE or TBE agarose gel (0.8% to 1%)**

Load 5 µl TrackIt™ 1 Kb Plus DNA Ladder per 5 mm lane width on a TAE or TBE agarose gel.

### **0.8% E-Gel® agarose gel**

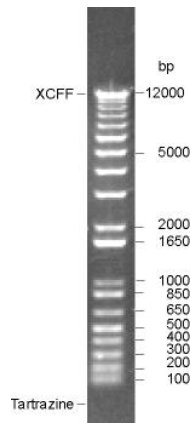
Mix 2 µl TrackIt™ 1 Kb Plus DNA Ladder with 18 µl deionized water and load 20 µl of the diluted ladder in the well of a single-comb 0.8% E-Gel®. Loading undiluted TrackIt™ DNA Ladder on an E-Gel® will result in loss of resolution.

3. Load your DNA samples.  
We recommend using the TrackIt™ Cyan/Yellow Loading Buffer to prepare your DNA samples. The TrackIt™ Loading Buffers contain the same two tracking dyes as the TrackIt™ DNA Ladders that allow you to visually track DNA migration during electrophoresis without obscuring any DNA bands. **Note:** If you are using TrackIt™ Cyan/Yellow Loading Buffer to prepare samples for E-Gel® agarose gels, dilute this buffer 60-fold (refer to the manual supplied with the loading buffer).
4. After electrophoresis, stain the DNA ladder with ethidium bromide or SYBR® Green I Nucleic Acid Gel Stain. **Note:** There is no need to stain E-Gel® agarose gels as the gels contain ethidium bromide.
5. Visualize DNA bands of the ladder on a UV transilluminator. An example of the ladder analyzed on an E-Gel® is shown on the next page.

### Example

The TrackIt™ 1 Kb Plus DNA Ladder (2 µl) was mixed with 18 µl deionized water and 20 µl of the diluted ladder was analyzed on a 0.8% E-Gel® agarose gel. The gel was visualized and imaged on a UV transilluminator equipped with a camera. The migration of tracking dyes is indicated in the figure below.

**Note:** For more details on the migration of XCFF and tartrazine in different percentage agarose gels, contact Technical Service.



### Product Qualification

Agarose gel analysis must show that all bands are distinguishable after ethidium bromide staining.

## Accessory Products

The following products are available separately from Invitrogen.

Product	Quantity	Catalog no.
E-Gel® 0.8%, 18 Pak	18 gels	G5018-08
E-Gel® 1.2%, 18 Pak	18 gels	G5018-01
UltraPure™ Agarose	100 g	15510-019
UltraPure™ Low Melting Point Agarose	50 g	15517-014
UltraPure™ 10 mg/ml Ethidium Bromide	10 ml	15585-011
TrackIt™ Cyan/Yellow Loading Buffer	3 x 0.5 ml	10482-035
SYBR® Green I Nucleic Acid Gel Stain	500 µl	S-7563

### Limited Use Label License No. 39: 1 Kb Plus DNA Ladder

The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. The buyer may transfer information or materials made through the use of this product to a scientific collaborator, provided that such transfer is not for any Commercial Purpose, and that such collaborator agrees in writing (a) to not transfer such materials to any third party, and (b) to use such transferred materials and/or information solely for research and not for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing; (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research. Invitrogen Corporation will not assert a claim against the buyer of infringement of patents owned by Invitrogen Corporation and claiming this product based upon the manufacture, use or sale of a therapeutic, clinical diagnostic, vaccine or prophylactic product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. If the purchaser is not willing to accept the limitations of this limited use statement, Invitrogen is willing to accept return of the product with a full refund. For information on purchasing a license to this product for purposes other than research, contact Licensing Department, Invitrogen Corporation, 1600 Faraday Avenue, Carlsbad, California 92008. Phone (760) 603-7200. Fax (760) 602-6500.

©2003 Invitrogen Corporation. All rights reserved.