Imaging

The 500 bp Fluorescein and Texas Red™ Rulers are easily imaged on the Fluor-S MultiImager system using 2 µl (1 ug) of DNA per lane. When using laser excitation less material (10X less) may be loaded per lane. For multicolor imaging, the 500 bp Fluorescein Ruler can be used with a Texas Red labeled sample and vice versa. DNA labeling kits are available with Fluorescein and Texas Red tagged nucleotides.

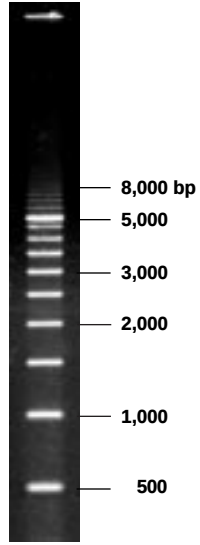

Fig. 1. 1 µg of the 500 bp Fluorescein Ruler was diluted to 5 ul in gel loading buffer (2.5% Ficoll, 0.01% bromophenol blue, in TE buffer) and loaded onto a 0.8% agarose gel. The gel was run at 100 V for 90 minutes in 1 X TBE and imaged using 302 nm scanning illumination on the Fluor-S Multi-Imager system for 2 minutes using the 530DF60 band pass filter.

Bio-Rad Laboratories, 2000 Alfred Nobel Dr., Hercules, CA 94547
4100114 Rev B

500 bp Fluorescein Ruler

Catalog Number
170-8218

BIO-RAD

Specifications

Contents	1 vial 500 bp Fluorescein Ruler, 100 ul supplied in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8). 1 vial 5X Gel Loading Buffer (5X TE, 15% Ficoll, 0.05% Bromophenol Blue).
Quantity	DNA sufficient for 50 lanes when used at 2 ul per lane.
Concentration	500 ug/ml
Shipping	The 500 bp Fluorescein Ruler is shipped at room temperature.
DNA fragment sizes	The 500 bp Fluorescein Ruler contains 16 bands, 500 to 8,000 bp in exact 500 bp increments. A visibly brighter reference band is present at 5,000 bp.

Storage	The 500 bp Fluorescein Ruler should be stored at 4 °C in the dark. For long term storage the standard can be stored at -20 °C. Use only sterile pipette tips when removing aliquots. Introduction of nucleases will shorten the shelf life.
Shelf life	The 500 bp Fluorescein Ruler is stable for 1 year when stored in the dark at 4 °C.
Optimum conditions	The 500 bp ruler can be well resolved on a 0.4% to 2% agarose gel when the appropriate gel length is considered. Most agarose has a fluorescent component and using Bio-Rad

Molecular Biology Certified Agarose will minimize the background effects associated with the fluorescence in agarose. Also, a thin gel (3 mm) will have less background than a thick gel (> 5 mm).

For example, an 0.8% agarose gel, 3mm thick and 10 cm in length, should be run at 90 to 100 volts for 1.5 hours or until the dye marker is at least 3/4 of the way down the gel. This will allow the dye marker to move past the 500 bp band, and allow for good resolution of the bands.