



CERTIFICATE OF ANALYSIS

O'RangeRuler™ 20 bp DNA Ladder, ready-to-use

#SM1323 50 µg (for 50-100 applications)

Lot: —

Concentration: 0.1 µg/µl

Supplied with: 1 ml 6X Orange DNA Loading Dye

**Store: at room temperature or at 4°C for
up to 6 months. For longer storage keep at -20°C.**

In total 2 vials.

ISO|ISO
9001|14001
www.fermentas.com

Description

O'RangeRuler™ 20 bp DNA Ladder is designed for precise sizing of PCR products and other double-stranded DNA fragments in high percentage agarose or non-denaturing polyacrylamide gels. It is a 20 bp step ladder especially useful for determining 20 bp differences between DNA fragments. The ladder consists of purified and ligated blunt-end basic unit repeats of 20 bp, and it is not suitable for DNA quantification on the gel.

The ladder contains the following 15 discrete fragments (in base pairs): **300**, 280, 260, 240, 220, **200**, 180, 160, 140, 120, **100**, 80, 60, 40, and 20. The brighter bands (100, 200 and 300 bp) serve as reference bands.

The ladder is ready to use – it is premixed with the 6X Orange DNA Loading Dye for direct loading on gels.

Storage and Loading Buffer

10 mM Tris-HCl (pH 7.6), 10 mM EDTA, 0.025% orange G, 0.005% xylene cyanol FF and 10% glycerol.

6X Orange DNA Loading Dye

10 mM Tris-HCl (pH 7.6), 0.15% orange G, 0.03% xylene cyanol FF, 60% glycerol and 60 mM EDTA.

Quality Control Assay Data

Well-defined bands are formed during agarose gel electrophoresis.

The absence of nucleases is confirmed by a direct nuclease activity assay.

Quality authorized by:

A handwritten signature in black ink, appearing to read "JZ", is positioned to the left of the name Jurgita Zilinskiene.

Jurgita Zilinskiene

Protocol for Loading

Step 1: Mix gently

Step 2: Load 1 µl per 1 mm gel lane

Recommendations

- Do not heat before loading.
- Dilute your DNA sample with the 6X Orange DNA Loading Dye. Mix 1 volume of the dye solution with 5 volumes of the DNA sample.
- Visualize DNA by staining either with ethidium bromide or with SYBR® Green I.

PRODUCT USE LIMITATION.

This product is developed, designed and sold exclusively *for research purposes and in vitro use only*. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to www.fermentas.com for Material Safety Data Sheet of the product.

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