

CERTIFICATE OF ANALYSIS

O'GeneRuler™

**Ultra Low Range DNA Ladder,
ready-to-use**

#SM1223 50 µg (for 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 periods store at -20°C.**

In total 2 vials.

Description

O'GeneRuler™ Ultra Low Range DNA Ladder, ready-to-use, contains a mix of 11 chromatography-purified individual DNA fragments (in base pairs): 300, 200, 150, 100, 75, **50**, 35, 25, 20, 15, 10. It contains 50 bp reference band for easy orientation.

The ladder is supplied in the storage and loading buffer and can be directly applied onto a gel.

It is specially designed for electrophoretic analysis of small DNA fragments on high percentage agarose (5%) and polyacrylamide (8-10%) 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:

 Jurgita Zilinskiene

RECOMMENDATIONS FOR USE

- Vortex gently just prior to use;
- Do not heat before loading;
- Apply 1-2 μl (0.1-0.2 μg) of the DNA ladder per 1 mm of agarose or polyacrylamide gel lane width;
- Visualize the DNA bands by ethidium bromide staining.

References

1. Stellwagen, N.C., Anomalous electrophoresis of deoxyribonucleic acid restriction fragments on polyacrylamide gels, *Biochemistry*, 22, 6186-6193, 1983.
2. Lane, D., et al., Use of gel retardation to analyze protein – nucleic acid interactions, *Microbiological Reviews*, 56, 509-528, 1992.
3. Stellwagen, N.C., Conformational isomers of curved DNA molecules can be observed by polyacrylamide gel electrophoresis, *Electrophoresis*, 21, 2327-2334, 2000.

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