peqGOLD 100 bp DNA Ladder Plus

'improved version'

DATA SHEET

Cat. No.	25-2020
Components	100 µl (50 µg) DNA Ladder, 1 ml Loading buffer (6x)
Concentration	0.5 mg DNA/ml
Usage	0.2 µl (0.1 µg) per mm lane width
Description	peqGOLD 100 bp DNA Ladder Plus is composed of 14 chromatography-purified individual DNA fragments which were re-dissolved in 10 mM Tris-HCl (pH 7.6) and 1 mM EDTA.
14 Fragments	3000, 2000, 1500, 1200, 1000, 900, 800, 700, 600, 500, 400, 300, 200 and 100 base pairs
Loading Buffer (6x)	10 mM Tris-HCl (pH 7.6), 0.03 % bromophenol blue, 0.03 % xylene cyanol, 60 % glycerol and 60 mM EDTA
Shipment	blue ice
Storage	-20 °C
Note	peqGOLD 100 bp DNA Ladder Plus is ideal for size determination in the range of 100 to 3000 base pairs. There are no unspecific bands besides the fragments described above. The 1000 bp and 500 bp bands have a higher DNA content and serve as a size reference. The marker has to be dephosphorylated before being used in radioactive assays. The 'improved version' is characterized by equalized amounts of DNA per band for easier quantification. The 1031 bp fragment was replaced by a 1000 bp fragment. The 1000 bp and the 500 bp fragments are introduced as new reference bands.

Loading

I. Agarose gels

DNA-Ladder has to be mixed with supplied 6x Loading Buffer before usage:

- 1-2 µl (0.5-1 µg) DNA-Ladder
- 1 µl 6x Loading buffer
- 4-3 µl ddH_2O

Vortex directly prior to use. 6 µl prepared marker is sufficient for 5 mm lane. Do not heat before loading! 50 µg marker is sufficient for approx. 100 lanes (5 mm lane width).

II. Polyacrylamide gels

DNA-Ladder has to be mixed with supplied 6x Loading Buffer before usage:

- 1-2 µl (0.5-1 µg) DNA Ladder
- 0.5 µl 6x Loading buffer
- 1.5-0.5 µl ddH_2O

Vortex directly prior to use. 3 µl prepared marker is sufficient for 5 mm lane. Do not heat before loading! 50 µg marker is sufficient for approx. 50 lanes (5 mm lane width).

peqGOLD 100 bp DNA Ladder Plus

Quantification

See the graph for the percentage of the bands and the amount of DNA per band in ng, relating to 0.5 µg loaded marker. Use the same volume of DNA and marker. Additionally the concentration of loading buffer in samples and marker should be equal.

Note

Ethidium bromide migrates contrarily to the DNA during electrophoresis. Therefore the distribution of ethidium bromide in the gel is not constant. To ensure equal distribution of ethidium bromide in the gel add 0.5 mg/l ethidium bromide to electrophoresis buffer or dye the gel after the run.