50-bp Plus DNA Ladder

Cat. no. TP-50 bp

Storage: Store at −20 °C for at least one year

Product Size:

DNA ladder	500 µL
6x Loading dye (TT-GN-DLB-100)	1 mL

Introduction

The ladder contains 16 double-stranded DNA bands that are designed for the sizing and approximate quantification of a wide range of molecular weight standards on agarose gels. The product should be premixed with 6× loading dye (TT-GN-DLB-100) before loading. The ladder is composed of 16 purified DNA fragments (in base pairs). The amount of DNA in each band per 5-µL loading are as follows: 3,000 (64 ng), 1,500 (50 ng), 1,000 (33 ng), 900 (33.5 ng), 800 (30 ng), 700 (31.5 ng), 600 (27 ng), 500 (46 ng), 400 (15 ng), 350 (31.5 ng), 300 (13.5 ng), 250 (22.5 ng), 200 (22.5 ng), 150 (13.5 ng), 100 (30 ng), and 50 (35.5 ng).

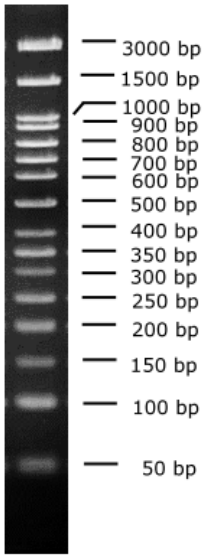
Buffer Contents

10 mM Tris-HCl (pH 8.0)

5 mM EDTA

Dilution protocol for 50-bp DNA Ladder

Content	Volume
ddH_2O or TE buffer	3 µl
6x Loading dye (TT-GN-DLB-100)	1 µl
50 bp Plus DNA Ladder	2 µl
Total Volume	6 µl



8.5cm 2.5% agarose gel
in 0.5X TAE buffer
100V, 45min

Protocol

1. Load 3–6 µL of the DNA Ladder–loading dye mix directly on an agarose gel (load 1 µL/mm gel wall width).
2. Electrophoresis settings: 2.5%–3% agarose gel; 4–10 V/cm voltage.
3. Visualize DNA marker by staining with ethidium bromide under UV light.