

# 100 bp DNA Ladder PLUS (100 – 5000 bp)

Cat. Number: PF00200

## Fragment sizes (base pairs)

17 Fragments    **100 150 200 300 400 500 (2x) 600 700 800 900 1000**  
                  **1500 2000 2500 3000 4000 5000 bp**

## Kit Contents

- 1 tube 100 bp DNA Ladder PLUS (50 µg, **blue lock**) for up to 100 loadings at 0.5 µg/lane
- 1 tube with 1 mL sterile 1 x loading buffer

100 bp DNA Ladder PLUS was manufactured from plasmids with specific sites of mutation<sup>1)</sup>, following restriction with EcoR I, digestion, de-proteination with phenol/chloroform, precipitation, de-salting and spectroscopic analysis. The marker is lyophilized for long-term storage. 100 – 1,000 bp fragments (60 % of total amount) are present in equimolar amounts except the 500 bp fragment, which is present in double amount for quick detection on the gel. 1,500 – 5,000 bp equimolar fragments make up for another 40 %.

1) One mutagenesis site per plasmid is protected legally. Amplification of the plasmids is not allowed without our written consent.

## Instructions

### Before first usage

100 bp DNA Ladder PLUS should be dissolved in 1 mL sterile 1 x loading buffer to obtain a final concentration of 0.5 µg/10 µL or depending on other intended use in sterile, double distilled water or TE. Dissolve 100 bp DNA Ladder PLUS by gently shaking it for 10 min at room temperature in the appropriate buffer.

### 1 x loading buffer, sterile

TRIS/HCl pH 7.5	10 mM
Na-acetate	5 mM
EDTA	2 mM
Glycerol	10 %
Bromophenol blue	0.02 %
Xylenecyanol blue	0.015 %

Size	1 µg DNA marker/lane	0.5 µg DNA marker/lane	0.25 µg DNA marker/lane
bp	ng DNA	ng DNA	ng DNA
- 5000	111	56	28
- 4000	89	45	22
- 3000	67	34	17
- 2500	56	28	14
- 2000	44	22	11
- 1500	33	17	8
- 1000	98	49	25
- 900	88	44	22
- 800	78	39	20
- 700	68	34	17
- 600	58	29	15
- <b>500</b>	<b>98</b>	<b>49</b>	<b>25</b>
- 400	39	20	10
- 300	29	15	5
- 200	20	10	5
- 150	14	7	4
- 100	10	5	3

### Sample loading on agarose gels

For agarose gel electrophoresis 0.25 – 1 µg DNA marker per lane are recommended for fluorescence detection of ethidium bromide stained gels.

### Storage

The lyophilized marker is stable at room temperature for >4 years. Once dissolved, the DNA marker should be stored at 4°C. Repeated (>20 x) thawing and freezing will damage the DNA marker and should be avoided.

### Restrictions in use

This product may only be used *in-vitro* for analytical research purposes. It is not intended for diagnostic purposes or any use in human or animal systems.