

DNA marker 200-1500

(Catalogue number D110, D111, D112)

Description

Estimation of the size of DNA fragments generated in PCR (PCR fragments) or by DNA cutting by restriction enzymes (restriction fragments) is usually based on the comparison of these fragments with DNA fragments of known size (DNA markers). Size of PCR fragments is usually in the range 200-1500 base pairs. This range is covered by DNA fragments, which are part of DNA marker 200-1500 (Fig. 1). These fragments were produced by the amplification of plasmid DNA of different length.

Technical data

Concentration

- 1 µg DNA/10 µl buffer (10 mM Tris-HCl, 25 mM EDTA, additives).

Packaging

- 1 tube containing 25 µg of amplified DNA fragments in 250 µl of buffer. This amount enables preparation of 25 (each 10 µl) or 50 (each 5 µl) markers.

Storage

- Store at temperature $-20 \pm 4^{\circ}\text{C}$. Material can be repeatedly defrosted.

Quality control

- The presence of corresponding fragments is controlled by electrophoresis in agarose gel supplemented with ethidium bromide (1 µg/ml). When observed under UV light, 9 DNA fragments are observed (200, 300, 400, 500, 600, 800, 1000, 1200, 1500 bp). 500 bp fragment is present in 2x higher amount (see Fig. 1).

Protocol

Recommended protocol for the determination of the size of PCR products

Add into 0.5 ml tube:

- 10 µl DNA marker 200-1500,
- 3 µl PCR loading buffer (Cat. No. P066).

Mix by pipeting tip and load into a well of the gel prepared from PCR agarose (Cat. No. P045).

Load into nearby wells the samples prepared by mixing:

- 10 µl PCR product,
- 3 µl PCR loading buffer.

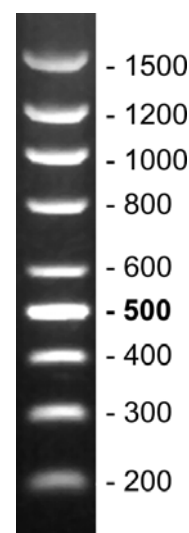


Fig. 1. Electrophoretic separation of components of DNA marker 200-1500.

10 µl of DNA marker was mixed with 3 µl of PCR loading buffer. Fragments were separated in 1.2% agarose gel, which contained ethidium bromide (1µg/ml) and 1x TBE buffer. The numbers on the left represent the number of base pairs in the corresponding DNA fragments.

Cat. No.	Product name and specification	Amount
D110	DNA marker 200-1500	25 µg/250 µl
D111	DNA marker 200-1500	5x 25 µg/250 µl
D112	DNA marker 200-1500	20x 25 µg/250 µl

