

100bp DNA Ladder Marker

RUO For Research Use Only

REF W3501

DESCRIPTION

The 100bp DNA Ladder Marker is a mixture of specially designed double-stranded DNA fragments for determining the exact size of PCR products and engineered DNA fragments. The 100bp DNA Ladder Marker consists of 11 DNA fragments ranging in size from 100 to 1,000 bp in 100 bp increment, and additional 1,500, 2,000 and 3,000 bp fragment. For easy size reference on the gel electrophoresis, the 500 bp and 1,000 bp are two to three times brighter than the other bands. The 100bp DNA Ladder Marker is supplied in a ready-to-use format. This ladder marker can be stained with ethidium bromide or any other known DNA staining methods.

KIT CONTENTS

Contents	W3501
100bp DNA Ladder (33 µg/ml)	500 µl

STORAGE BUFFER

Marker DNA : 33 µg in 1 ml of 10 mM Tris-HCl, pH8.0, 1 mM EDTA, 5% Glycerol, 0.005% Bromophenol Blue, and 0.005% Xylene Cyanol FF.

USAGE INFORMATION

- Concentration : 330 ng/10 µl (33 µg/ml)
- Recommended loading : 2~5 µl (100 lanes, ready-to-use)
- Range : 100 – 3,000 bp
- Number of bands : 13

STORAGE CONDITIONS

- -20°C for 2 year
- 4°C for 12 months
- Room temperature (20-25°C) for 2 months.

CAUTIONS

- Always use the fresh tip to take out marker solution.
(If you do not, trace amount of contaminated DNases from buffer tank may degrade marker DNA rapidly)
- Don't boil the product.
- Use appropriate % of gels for separation of 100 to 3,000 bp sizes (1 to 3% agarose gel is recommended)
- Confirm that the concentration of DNA staining dye is optimal before use. (Breakage or suboptimal concentration of ethidium bromide in gel is a main cause of low estimation of marker concentration or your DNA. 5ng of DNA should be seen in normal condition)
- Loading volume and concentration should be optimized by gel size, well size, and running length.
- Low sized DNA bands can be gradually disappeared as running is progressing. (This is because some DNA is getting out from gel to buffer during horizontal electrophoresis, not because the DNA concentration is incorrect. This will be the same for your DNA)

ORDERING INFORMATION

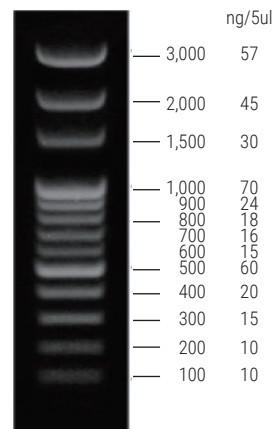
Product	Cat No.	Package
100bp DNA Ladder Marker	W3501	500 µl

Recommended Gel Percentages for Separation of Linear DNA

Agarose gel (%)	Range of separation (bp)	Polyacrylamide gel (%)	Range of separation (bp)
0.5	1,000 - 30,000	3.5	100 - 1,000
0.7	800 - 12,000	5.0	80 - 500
1.0	500 - 10,000	8.0	60 - 400
1.2	400 - 7,000	12.0	40 - 200
1.4	200 - 4,000	20.0	5 - 100
2.0	50 - 2,000		

DNA Size Migration with Sample Loading Dyes

Agarose gel (%)	Xylene cyanol FF	Bromophenol blue	Orange G
0.7 - 1.7	~ 4,000 bp	~ 300 bp	~ 50
2.5 - 3.0	~ 800 bp	~ 100 bp	~ 30



10 µl (330 ng)/lane ;
1.2% agarose in 0.5 X TBE, stained with ethidium bromide

Technical Support



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