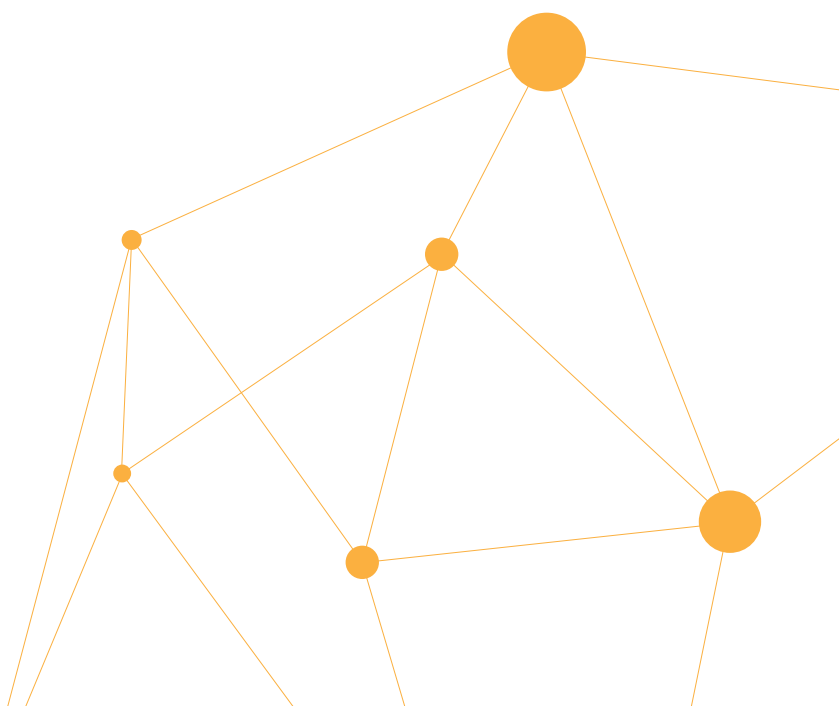


# Ladders & Markers

01. DNA Ladders

02. Protein Size Markers



## 01. DNA Ladders

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# Selection Guide

## Overview

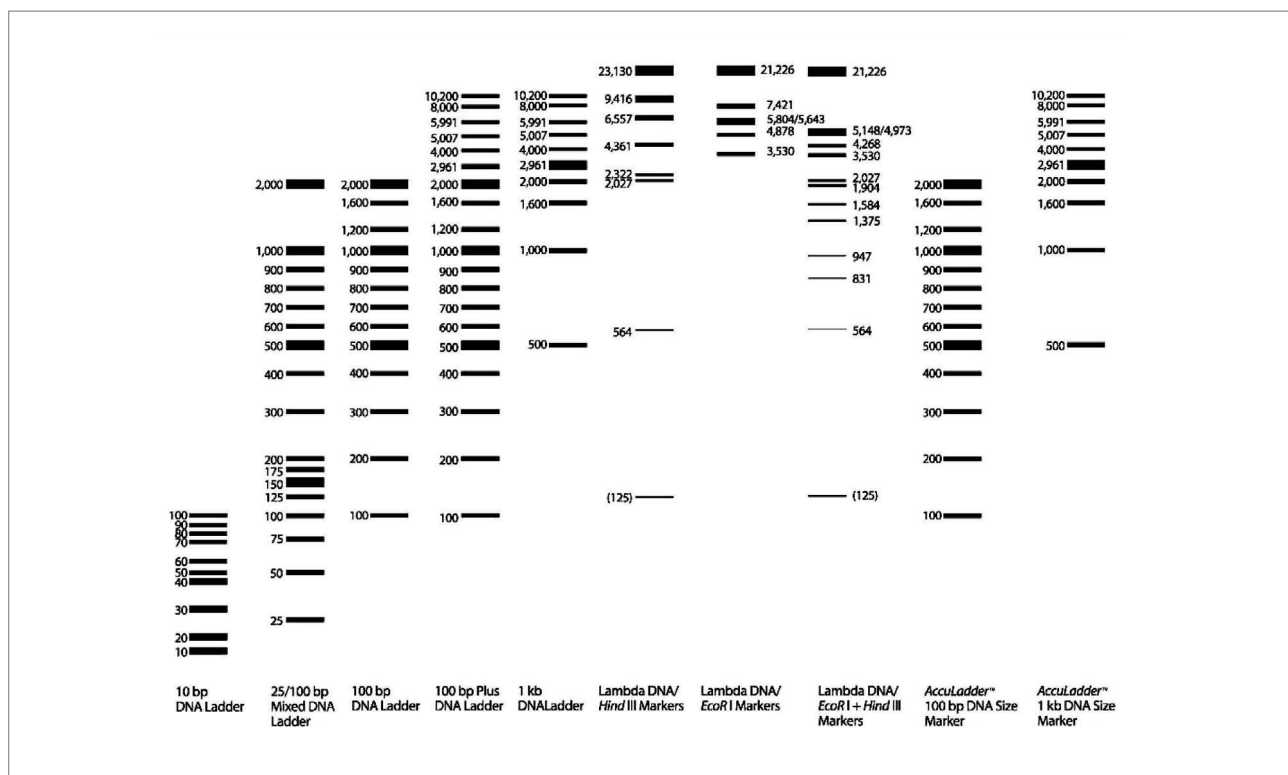
Bioneer's size marker products can accurately estimate the size of various DNA and can be stored stably at room temperature. Not only 10 bp short DNA but also 25 kb long DNA can be accurately identified on agarose gel.

## Features and Benefits

- Convenience**  
 Ready-to-load with pre-mixed loading dye.
- Broad range of products available**  
 Composed of various ladders to check the size from 10 bp to 23 kb.
- Reproducibility**  
 Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

## Selection Guide

Product Description	No. of Bands	Smallest Fragment	Largest Fragment
10 bp DNA Ladder	10	10 bp	100 bp
25/100 bp Mixed DNA Ladder	17	25 bp	2,000 bp
25/100 bp Mixed DNA Ladder(-dye)			
100 bp DNA Ladder	13	100 bp	2,000 bp
100 bp DNA Ladder(-dye)			
100 bp Plus DNA Ladder	19	100 bp	10,200 bp
100 bp Plus DNA Ladder(-dye)			
1 kb DNA Ladder	10	500 bp	10,200 bp
1 kb DNA Ladder(-dye)			
Lambda DNA / <i>EcoR</i> I Markers	6	3,530 bp	21,226 bp
Lambda DNA / <i>Hind</i> III Markers	8	125 bp	23,130 bp
Lambda DNA / <i>EcoR</i> I + <i>Hind</i> III Markers	13	125 bp	21,226 bp
AccuLadder™ 100 bp DNA Size Marker	13	100 bp	2,000 bp
AccuLadder™ 1 kb DNA Size Marker	10	500 bp	10,200 bp



# 10 bp DNA Ladder



## Description

10 bp DNA Ladder is designed for estimating sizes of double-stranded DNA ranging from 10 to 100 bp. It consists of total 10 DNA fragment markers from 10 to 100 bp in 10 bp increments.

## Features and Benefits

### Convenience

Ready-to-load with pre-mixed loading dye.

### Stability

Storage at room temperature for more than 6 months without being in freezer or refrigerator.

### Reproducibility

Reproducible results by manufacturing under the ISO 9001 quality system.

## Notice

- This product is designed only for agarose gel-electrophoresis.
- Avoid repetitive freezing and thawing.
- Heating is not required before loading.

## Specifications

Concentration	522 ng/ $\mu$ l
Recommended loading volume	1.5~2.0 $\mu$ l/ 5 mm lane width, 4.0% agarose(0.5X TBE buffer) gel
Size range	10~100 bp
Number of bands	10
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 5% Ficoll, 0.012% Bromophenol Blue, 0.01% Xylene Cyanol, 0.08% Orange G
Storage	-20°C

## Experimental Data

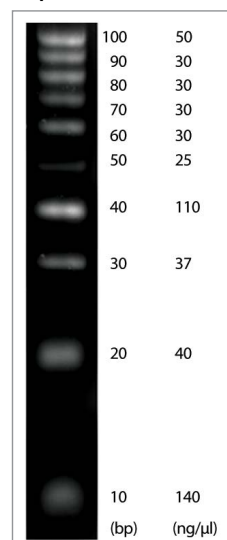


Figure 1. 4.0% TBE agarose gel stained with Ethidium Bromide.

## Ordering Information

Cat. No.	Product Description
D-1010	10 bp DNA Ladder, 100 $\mu$ l (522 ng/ $\mu$ l)

# 25/100 bp Mixed DNA Ladder



## Description

25/100 bp Mixed DNA Ladder is designed for estimating sizes of double-stranded DNA ranging from 25 to 2,000 bp. It consists of total 17 DNA fragment markers: 8 markers from 25 to 200 bp in 25 bp increments, 8 markers from 200 to 1,000 bp in 100 bp increments, and an additional marker of 2,000 bp.

## Features and Benefits

- Convenience**  
Ready-to-load with pre-mixed loading dye Buffer compatibility.
- Stability**  
Storage at room temperature for more than 6 months without being in freezer or refrigerator.
- Reproducibility**  
Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.
- Buffer compatibility**  
Applicable with TBE or TAE buffers.

- Notice**
- This product is designed only for agarose gel-electrophoresis.
  - Avoid repetitive freezing and thawing.
  - Heating is not required before loading.

## Ordering Information

Cat. No.	Product Description
D-1020	25/100 bp Mixed DNA Ladder, 500 µl (150 ng/µl)
D-1021	25/100 bp Mixed DNA Ladder, 2,500 µl (500 µl X 5)

## Specifications

Concentration	150 ng/µl
Recommended loading volume	2 µl/5 mm lane width, 2.0% agarose (0.5X TBE buffer) gel
Typical Number of lanes	250 (5 mm lane width)
Size range	25~2,000 bp
Number of bands	17
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## Experimental Data

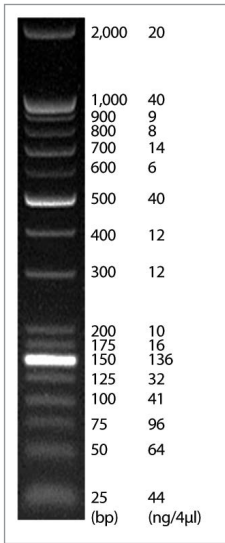


Figure 1. 2.0% TBE agarose gel stained with Ethidium Bromide.

# 25/100 bp Mixed DNA Ladder (-dye)



## Description

25/100 bp Mixed DNA Ladder (-dye) is designed for estimating sizes of double-stranded DNA ranging from 25 to 2,000 bp. It consists of total 17 DNA fragment markers: 8 markers from 25 to 200 bp in 25 bp increments, 8 markers from 200 to 1,000 bp in 100 bp increments, and an additional marker of 2,000 bp.

## Features and Benefits

- Reproducibility**  
Reproducible results with uniform quality products for each batch by producing under the ISO 9001 quality system.
- Buffer compatibility**  
Applicable with TBE or TAE buffers.

- Notice**
- Avoid repetitive freezing and thawing.
  - Heating is not required before loading.
  - Loading dye is not included. When using Agarose gel, add loading dye.

## Ordering Information

Cat. No.	Product Description
D-1022	25/100 bp Mixed DNA Ladder (-dye), 500 µl (180 ng/µl)

## Specifications

Concentration	180 ng/µl
Volume	500 µl
Size range	25~2,000 bp
Number of bands	17
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA
Storage	-20°C

## Experimental Data

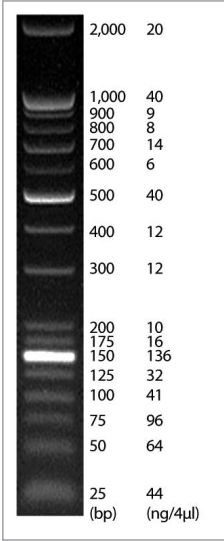


Figure 1. 2.0% TBE agarose gel stained with Ethidium Bromide.

# 100 bp DNA Ladder



## Description

100 bp DNA Ladder is designed for estimating sizes of double-stranded DNA ranging from 100 to 2,000 bp. It consists of total 13 DNA fragment markers: 10 markers from 100 to 1,000 bp in 100 bp increments, and 3 additional markers of 1,200, 1,600, 2,000 bp.

## Features and Benefits

### Convenience

Ready-to-load with pre-mixed loading dye.

### Stability

Storage at room temperature for more than 6 months without being in freezer or refrigerator.

### Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### Buffer compatibility

Applicable with TBE or TAE buffers.

## Notice

- This product is designed only for agarose gel-electrophoresis.
- Avoid repetitive freezing and thawing.
- Heating is not required before loading.

## Ordering Information

Cat. No.	Product Description
D-1030	100 bp DNA Ladder, 500 µl (100 ng/µl)
D-1031	100 bp DNA Ladder, 2,500 µl (500 µl X 5)

## Specifications

Concentration	100 ng/µl
Recommended loading volume	2 µl/5 mm lane width, 1.0% agarose (0.5X TBE buffer) gel
Typical Number of lanes	250 (5 mm lane width)
Size range	100~2,000 bp
Number of bands	13
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## Experimental Data

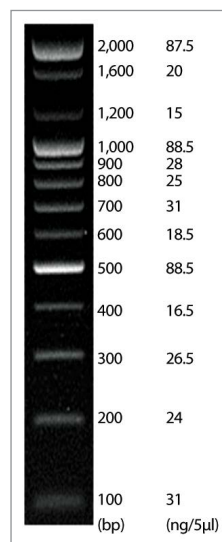
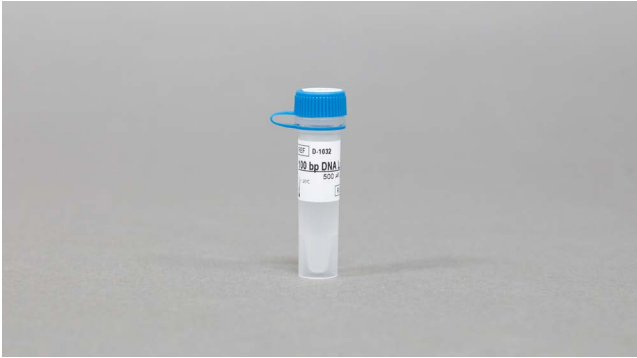


Figure 1. 1.5% TBE agarose gel stained with Ethidium Bromide.

# 100 bp DNA Ladder (-dye)



## Description

100 bp DNA Ladder (-dye) is designed for estimating sizes of double-stranded DNA ranging from 100 to 2,000 bp. It consists of total 13 markers, 10 markers from 100 to 1,000 bp, in 100 bp increments, and 3 additional markers of 1,200, 1,600, 2,000 bp.

## Features and Benefits

### Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### Buffer compatibility

Applicable to TBE or TAE buffers.

## Notice

- Avoid repetitive freezing and thawing.
- Heating is not required before loading.
- Loading dye is not included. When using Agarose gel, add loading dye.

## Ordering Information

Cat. No.	Product Description
D-1032	100 bp DNA Ladder (-dye), 500 µl (120 ng/µl)

## Specifications

Concentration	120 ng/µl
Volume	500 µl
Size range	100~2,000 bp
Number of bands	13
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA
Storage	-20°C

## Experimental Data

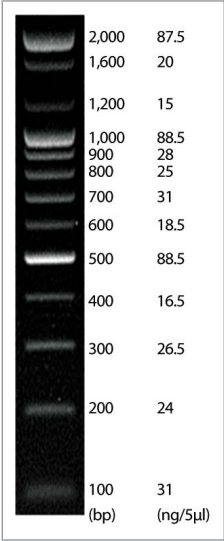


Figure 1. 1.5% TBE agarose gel stained with Ethidium Bromide.



# 100 bp Plus DNA Ladder



## Description

100 bp Plus DNA Ladder is designed for estimating sizes of double-stranded DNA ranging from 100 to 10,200 bp. It consists of total 19 DNA fragment markers: 10 markers from 100 to 1,000 bp in 100 bp increments, and 9 additional markers of 1,200, 1,600, 2,000, 2,961, 4,000, 5,007, 5,991, 8,000, 10,200 bp.

## Features and Benefits

### Convenience

Ready-to-load with pre-mixed loading dye.

### Stability

Storage at room temperature for more than 6 months without being in freezer or refrigerator.

### Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### Buffer compatibility

Applicable to TBE or TAE buffers.

## Notice

- This product is designed only for agarose gel-electrophoresis.
- Avoid repetitive freezing and thawing.
- Heating is not required before loading.

## Ordering Information

Cat. No.	Product Description
D-1035	100 bp Plus DNA Ladder, 500 µl (80 ng/µl)
D-1036	100 bp Plus DNA Ladder, 2,500 µl (500 µl X 5)

## Specifications

Concentration	80 ng/µl
Recommended loading volume	4 µl/5 mm lane width, 1.0% agarose (0.5X TBE buffer) gel
Typical Number of lanes	125 (5 mm lane width)
Size range	100~10,200 bp
Number of bands	19
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## Experimental Data

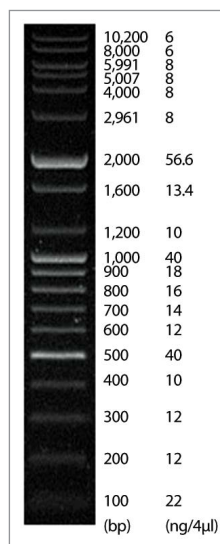
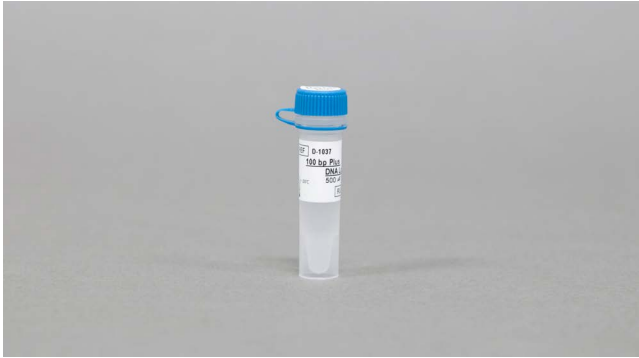


Figure 1. 1.0% TBE agarose gel stained with Ethidium Bromide.

# 100 bp Plus DNA Ladder (-dye)



## Description

100 bp Plus DNA Ladder (-dye) is designed for size determination of double stranded DNA fragments ranging from 100 bp to 10,200 bp. The 100 bp Plus DNA Ladder consists of 19 double stranded molecular weight markers, from 100 bp to 1,000 bp in 100 bp increments, plus additional 1,200, 1,600, 2,000, 2,961, 4,000, 5,007, 5,991, 8,000, 10,200 bp fragments.

## Features and Benefits

- Reproducibility**  
Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.
- Buffer compatibility**  
Applicable to TBE and TAE buffers

## Notice

- Avoid repetitive freezing and thawing.
- Heating is not required before loading.
- Loading dye is not included. When using Agarose gel, add loading dye.

## Ordering Information

Cat. No.	Product Description
D-1037	100 bp Plus DNA Ladder (-dye), 500 µl (96 ng/µl)

## Specifications

Concentration	96 ng/µl
Volume	500 µl
Size range	100~10,200 bp
Number of bands	19
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA
Storage	-20°C

## Experimental Data

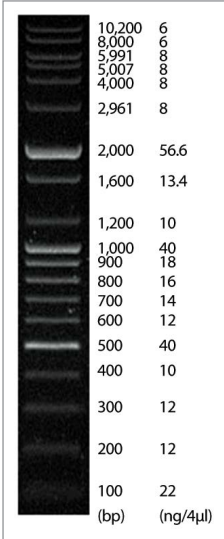


Figure 1. 1.0% TBE agarose gel stained with Ethidium Bromide.

# AccuLadder™ 100 bp DNA Size Marker



## Description

AccuLadder™ 100 bp DNA size marker is used to determine the size of double stranded DNA fragments from 100 to 2,000 bp. The AccuLadder™ 100 bp DNA size marker consists of 13 double stranded molecular weight markers ranging in sizes from 100 to 1,000 bp in 100 bp increments, and additional fragments of 1,200, 1,600, 2,000 bp. The 500, 1,000 and 2,000 bp bands are two times brighter for easy identification. AccuLadder™ is shaper and brighter than our standard 100 bp ladder.

## Features and Benefits

### Convenience

Ready-to-load with pre-mixed loading dye.

### Stability

Storage at room temperature for more than 6 months without in freezer or refrigerator.

### Reproducibility

Under ISO 9001 Quality Assurance System, Bioneer's products provide consistency of experimental results.

### Buffer compatibility

Applicable to TBE and TAE buffers.

## Notice

- This product is designed only for agarose gel-electrophoresis.
- Avoid repetitive freezing and thawing.
- Heating is not required before loading.

## Ordering Information

Cat. No.	Product Description
D-1030-1	AccuLadder™ 100 bp Size Marker, 640 µl (40 ng/µl)

## Specifications

Concentration	40 ng/µl
Recommended loading volume	5 µl/5 mm lane width, 1.5% agarose (0.5X TBE buffer) gel
Typical Number of lanes	160 (5 mm lane width)
Size range	100~2,000 bp
Number of bands	13
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## Experimental Data

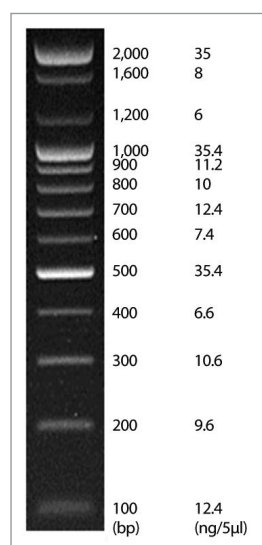


Figure 1. 1.5% TBE agarose gel stained with Ethidium Bromide.

# 1 kb DNA Ladder



## Description

1 kb DNA Ladder is designed for quantification of unknown double-stranded DNA size ranging from 0.5 to 10 kb. It consists of total 10 markers of DNA fragments 0.5 bp, 1.0 bp, 1.6 bp, 2.0 bp, 3.0 (2.961) bp, 4.0 (4.000) bp, 5.0 (5.007) bp, 6.0 (5.991) bp, 8.0 (8.000) bp, and 10.2 (10.200) Kb.

## Features and Benefits

### Convenience

Ready-to-load with pre-mixed loading dye.

### Stability

Storage at room temperature for more than 6 months without being in freezer or refrigerator.

### Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### Buffer compatibility

Applicable to TBE and TAE buffers.

## Notice

- This product is designed only for agarose gel-electrophoresis.
- Avoid repetitive freezing and thawing.
- Heating is not required before loading.

## Ordering Information

Cat. No.	Product Description
D-1040	1 kb DNA Ladder, 500 µl (100 ng/µl)
D-1041	1 kb DNA Ladder, 2,500 µl (500 µl X 5)

## Specifications

Concentration	100 ng/µl
Recommended loading volume	2 µl/5 mm lane width, 1.0% agarose (0.5X TBE buffer) gel
Typical Number of lanes	250 (5 mm lane width)
Size range	500~10,200 bp
Number of bands	10
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## Experimental Data

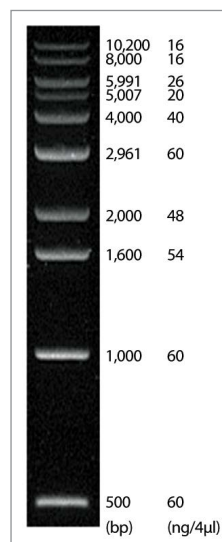


Figure 1. 1.0% TBE agarose gel stained with Ethidium Bromide.

## 1 kb DNA Ladder (-dye)



### Specifications

Concentration	120 ng/μl
Volume	500 μl
Size range	500~10,200 bp
Number of bands	10
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA
Storage	-20°C

### Description

1 kb DNA Ladder (-dye) is designed for quantification of unknown double-stranded DNA size ranging from 0.5 to 10 kb. It consists of total 10 markers of DNA fragments 0.5 bp, 1.0 bp, 1.6 bp, 2.0 bp, 3.0 (2.961) bp, 4.0 (4.000) bp, 5.0 (5.007) bp, 6.0 (5.991) bp, 8.0 (8.000) bp, and 10.2 (10.200) kb.

### Features and Benefits

#### Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

#### Buffer compatibility

Applicable to TBE and TAE buffers.

#### Notice

- Repeated freezing and thawing should be avoided.
- No need to heat before loading.
- Loading dye is not included. When using Agarose gel, add loading dye.

### Experimental Data

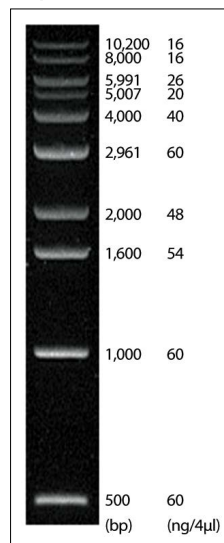


Figure 1. 1.0% TBE agarose gel stained with Ethidium Bromide.

### Ordering Information

Cat. No.	Product Description
D-1042	1 kb DNA Ladder (-dye), 500 μl (120 ng/μl)

# AccuLadder™ 1 kb DNA Size Marker



## ○ Description

AccuLadder™ 1 kb DNA Size Marker is designed for quantification of unknown double-stranded DNA size ranging from 0.5 to 10 kb. It consists of total 10 markers: 5, 1.0, 1.6, 2.0, 3.0 (2.961), 4.0 (4.000), 5.0 (5.007), 6.0 (5.991), 8.0 (8.000), and 10.2 (10.200) kb.

## ○ Features and Benefits

### ▪ Convenience

Ready-to-load with pre-mixed loading dye.

### ▪ Stability

Storage at room temperature for more than 6 months without being in freezer or refrigerator.

### ▪ Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### ▪ Buffer compatibility

Applicable to TBE or TAE buffers.

## ⚠ Notice

- This product is designed only for agarose gel-electrophoresis.
- Avoid repetitive freezing and thawing.
- Heating is not required before loading.

## ○ Specifications

Concentration	50 ng/μl
Recommended loading volume	5 μl/5 mm lane width, 1.0% agarose (0.5X TBE buffer) gel
Typical Number of lanes	200 (5 mm lane width)
Size range	500~10,200 bp
Number of bands	10
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## ○ Experimental Data

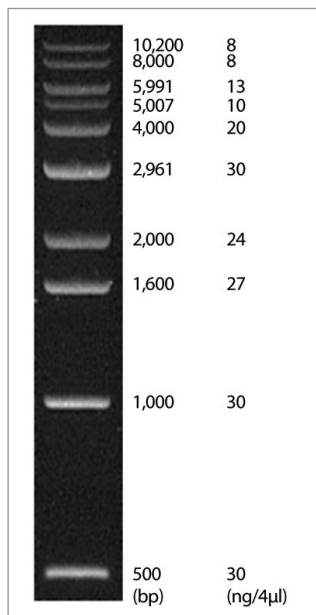


Figure 1. 1.0% TBE agarose gel stained with Ethidium Bromide.

## ○ Ordering Information

Cat. No.	Product Description
D-1040-1	AccuLadder™ 1 kb DNA Size Marker, 1,000 μl (50 ng/μl)

# Lambda DNA/*EcoR* I Markers



## Description

Lambda DNA/*EcoR* I Marker consist of 6 double stranded lambda DNA fragments ranging in size from 3,530 to 21,226 bp.

## Features and Benefits

### Convenience

Ready-to-load with pre-mixed loading dye.

### Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### Notice

- This product is designed only for agarose gel-electrophoresis.

## Specifications

Concentration	200 ng/ $\mu$ l
Recommended loading volume	1~2 $\mu$ l/5 mm lane width, 0.7% TAE agarose gel
Typical Number of lanes	250~500 (5 mm lane width)
Size range	3,530~21,226 bp
Number of bands	6
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## Experimental Data

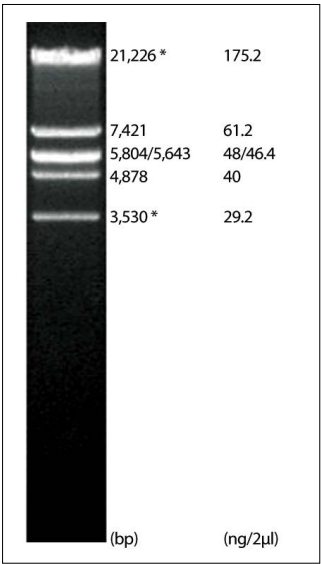


Figure 1. 0.7% TAE agarose gel stained with Ethidium Bromide.

The cohesive ends (indicated by an\* in the picture above) of the 12 nt cos site of bacteriophage lambda may anneal and form an additional band. These fragments can be separated by heating at 60~65°C for 5 min and then cooling on ice for 3 min.

## Ordering Information

Cat. No.	Product Description
D-1060	Lambda DNA/ <i>EcoR</i> I Marker, 3,530 - 21,226 bp, 500 $\mu$ l (0.2 $\mu$ g/ $\mu$ l)
D-1061	Lambda DNA/ <i>EcoR</i> I Marker, 3,530 - 21,226 bp, 2,500 $\mu$ l (500 $\mu$ l X 5)

# Lambda DNA/*Hind* III Markers



## ○ Description

Lambda DNA/*Hind* III DNA Marker is consist of 8 double stranded Lambda DNA fragments ranging in size from 125 to 23,130 bp.

## ○ Features and Benefits

### ■ Convenience

Ready-to-load with pre-mixed loading dye.

### ■ Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### ⚠ Notice

- This product is designed only for agarose gel-electrophoresis.

## ○ Specifications

Concentration	200 ng/μl
Recommended loading volume	1~2 μl/5 mm lane width, 0.7% TAE agarose gel
Typical Number of lanes	250~500 (5 mm lane width)
Size range	125~23,130 bp
Number of bands	8
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## ○ Experimental Data

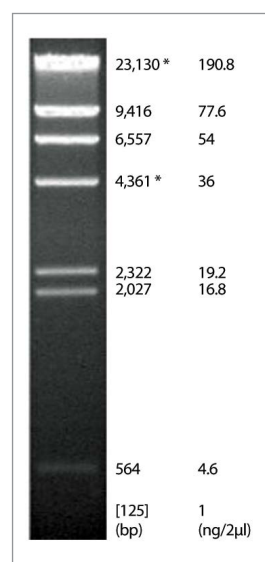


Figure 1. 0.7% TAE agarose gel stained with Ethidium Bromide.

The cohesive ends (indicated by an\* in the picture above) of the 12 nt cos site of bacteriophage lambda may anneal and form an additional band. These fragments can be separated by heating at 60 - 65°C for 5 min and then cooling on ice for 3 min.

## ○ Ordering Information

Cat. No.	Product Description
D-1050	Lambda DNA / <i>Hind</i> III Markers, 500 μl (200 ng/μl)
D-1051	Lambda DNA / <i>Hind</i> III Markers, 2,500 μl (500 μl X 5)



# Lambda DNA/*EcoR* I + *Hind* III Markers



## Description

Lambda DNA/*EcoR* I + *Hind* III DNA Marker consist of 13 double stranded Lambda DNA fragments ranging in size from 125 to 21,226 bp.

## Features and Benefits

### Convenience

Ready-to-load with pre-mixed loading dye.

### Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

### Notice

- This product is designed only for agarose gel-electrophoresis.

## Specifications

Concentration	200 ng/μl
Recommended loading volume	1~2 μl/5 mm lane width, 0.7% TAE agarose gel
Typical Number of lanes	250~500 (5 mm lane width)
Size range	125~21,226 bp
Number of bands	13
Supplied in	10 mM Tris-HCl (pH 8.0), 1 mM EDTA, 2.5% Ficoll, 0.005% Bromophenol Blue, 0.005% Xylene Cyanol
Storage	-20°C

## Experimental Data

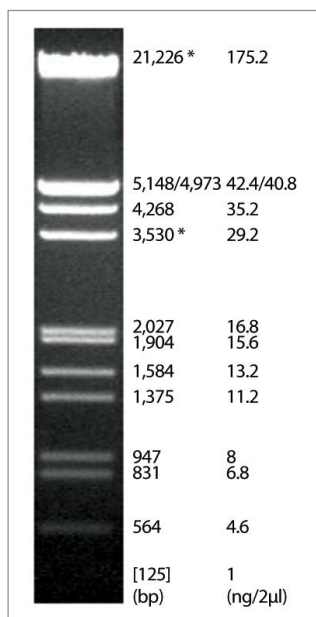


Figure 1. 0.7% TAE agarose gel stained with Ethidium Bromide.

The cohesive ends (indicated by an\* in the picture above) of the 12 nt cos site of bacteriophage lambda may anneal and form an additional band. These fragments can be separated by heating at 60~65°C for 5 min and then cooling on ice for 3 min.

## Ordering Information

Cat. No.	Product Description
D-1070	Lambda DNA/ <i>EcoR</i> I + <i>Hind</i> III Marker, 125 - 21,226 bp, 500 μl (0.2 μg/μl)
D-1071	Lambda DNA/ <i>EcoR</i> I + <i>Hind</i> III Marker, 125 - 21,226 bp, 2,500 μl (500 μl X 5)

# Lambda DNA



## Description

Lambda DNA is isolated from Lambda phage (*Ci857 Sam7*) obtained from heat-inducible lysogen *E. coli* strain (*dam<sup>+</sup>*, *dcm<sup>+</sup>*). It can be used to assay the activity of nucleases or for DNA molecular weight marker after restriction enzyme digestion.

## Ordering Information

Cat. No.	Product Description
D-2510	Lambda DNA, 500 µl (500 ng/µl)
D-2511	Lambda DNA, 2,500 µl (500 µl X 5)

## Specifications

Concentration	500 ng/µl
Length	48,502 bp
Supplied Condition	10 mM Tris-HCl (pH 8.0), 1 mM EDTA
Storage	-20°C

## Reference

Sanger, F. et al.(1982) *J. Mol. Biol.* 162, 72

## 02. Protein Size Markers

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# AccuLadder™ Protein Size Marker (Broad)



## ○ Description

AccuLadder™ Protein Size Marker (Broad) consists of 8 different types of highly pure proteins (6.5~116 kDa). It can be applied to silver staining as well as Coomassie blue staining. AccuLadder™ Protein Size Marker (Broad) is loaded with a loading buffer that can be used immediately after boiling with a sample.

## ○ Features and Benefits

### ■ Convenience

Ready-to-load with pre-mixed loading dye.

### ■ Compatibility

Applicable to Coomassie Blue and Silver staining.

### ■ Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

## ⚠ Notice

- The protein marker can be applied onto a SDS-PAGE gel.
- Heating is required before loading.
- Avoid repetitive freezing and thawing.

## ○ Specifications

Size range	6.5~116 kDa
Number of bands	8
Concentration	0.1~0.2 mg/ml
Loading volume	5 µl/well (Mini-gel ; 10x8 cm <sup>2</sup> , 0.75 or 1.0 mm thick)
Storage	-20°C

## ○ Components

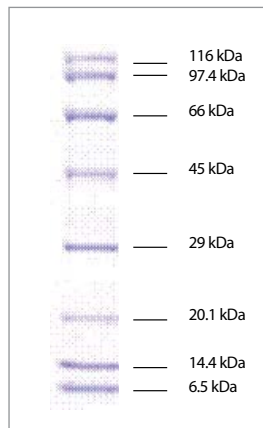


Figure 1. 12% SDS-PAGE gel stained with Coomassie Blue R-250.

Protein	M.W. (kDa)	Source
β-Galactosidase	116	<i>E.coli</i>
Phosphorylase b	97.4	Rabbit muscle
Albumin	66	Bovine serum
Ovalbumin	45	Chicken egg white
Carbonic anhydrase	29	Bovine erythrocytes
Trypsin inhibitor	20.1	Soybean
Lysozyme	14.4	Chicken egg white
Aprotinin	6.5	Bovine lung

## ○ Ordering Information

Cat. No.	Product Description
D-2010	AccuLadder™ Protein Size Marker (Broad), 500 µl

# AccuLadder™ Protein Size Marker (Low)



## ○ Description

AccuLadder™ Protein Size Marker (Low) consists of 6 different types of high pure proteins (6.5~66 kDa). It can be applied to silver staining as well as Coomassie blue staining. AccuLadder™ Protein Size Marker (Low) is loaded with a loading buffer that can be used immediately after boiling with a sample.

## ○ Features and Benefits

### ■ Convenience

Ready-to-load with pre-mixed loading dye.

### ■ Compatibility

Applicable to Coomassie Blue Staining and Silver staining.

### ■ Reproducibility

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

## ⚠ Notice

- The protein marker can be applied onto a SDS-PAGE gel.
- Heating is required before loading.
- Avoid repetitive freezing and thawing.

## ○ Specifications

Size range	6.5~66 kDa
Number of bands	6
Concentration	0.1~0.2 mg/ml
Loading volume	5 µl/well (Mini-gel ; 10x8 cm <sup>2</sup> , 0.75 or 1.0 mm thick)
Storage	-20°C

## ○ Experimental Data

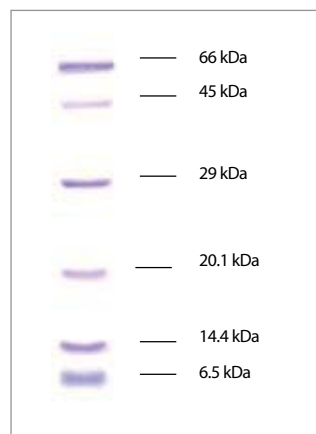


Figure 1. 12% SDS-PAGE gel stained with Coomassie blue R-250.

Protein	M.W. (kDa)	Source
Albumin	66	Bovine serum
Ovalbumin	45	Chicken egg white
Carbonic anhydrase	29	Bovine erythrocytes
Trypsin inhibitor	20.1	Soybean
Lysozyme	14.4	Chicken egg white
Aprotinin	6.5	Bovine lung

## ○ Ordering Information

Cat. No.	Product Description
D-2020	AccuLadder™ Protein Size Marker (Low), 500 µl

# AccuLadder™ 3-color Prestained Protein size marker (Broad)



## ○ Description

AccuLadder™ 3-color Prestained Protein size marker (Broad) allows to estimate the sizes of proteins during protein electrophoresis. This product is composed of 12 different types of proteins (11-245 kDa). Proteins are covalently coupled with a blue chromophore except for two reference bands (one green and one red band at 25 kDa and 75 kDa respectively), allowing each band to be distinguished with ease. AccuLadder™ 3-color Prestained protein size marker (Broad) is designed for monitoring protein isolation when observing Western transfer efficiency on membranes (PVDF, nylon, or nitrocellulose) and estimating the sizes of proteins. The ladder is supplied in a gel loading buffer, making it ready to be used.

## ○ Features and Benefits

### ■ Broad range

Identify proteins between 11-245 kDa when used with Tris-glycine-SDS running buffer.

### ■ Ready-to-use

Simply use the product directly as it is already supplied in a loading buffer; no additional process, such as boiling or adding buffer, is needed.

### ■ Easy to identify

Includes 25, 75 kDa reference bands coupled with a green and a red dye.

### ■ Reproducible

Reproducible results with uniform quality products for each batch by manufacturing under the ISO 9001 quality system.

## ○ Ordering Information

Cat. No.	Product Description
D-2030	AccuLadder™ 3-color Prestained protein size marker (Broad), 500 µl

## ○ Specifications

Size range	11-245 kDa
Number of bands	12
Concentration	0.1-0.4 mg/ml
Loading volume	5 µl/well (mini-gel: 10x8cm <sup>2</sup> , 0.75 or 1.0 mm thick)
Storage	-20°C

## ○ Experimental Data

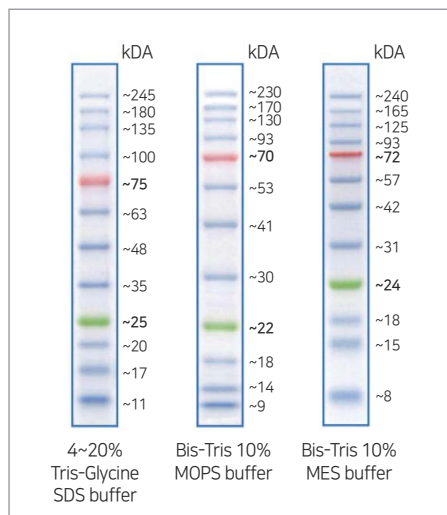


Figure 1. Guide for Estimating Molecular Weight Estimation (kDa).