

# Fast DNA Ladder



1-800-632-7799  
info@neb.com  
www.neb.com



N3238S 002120914091

## N3238S

50–200 gel lanes (1 ml) Lot: 0021209 Exp: 9/14

25 µg/ml Store at 4°C

**Description:** The Fast DNA ladder is a pre-mixed, ready-to-load molecular weight marker containing xylene cyanol FF dye as a tracking dye.

The DNA Ladder consists of proprietary plasmids, which are digested to completion with appropriate restriction enzymes to yield 11 bands suitable for use as molecular weight standards for fast electrophoresis systems as well as standard electrophoresis. The digested DNA includes fragments ranging from 50 base pairs to 10 kilobases. The 1 kb fragment has increased intensity to serve as reference band.

Supplied in: 0.0025% xylene cyanol FF, 5% glycerol, 5 mM Tris-HCl (pH 8.0) and 5 mM EDTA.

**Preparation:** The double-stranded DNA is digested to completion with appropriate restriction enzymes, phenol extracted and equilibrated in storage buffer.

**Usage Recommendation:** For standard electrophoresis applications, we recommend loading 20 µl (0.5 µg) of the Fast DNA Ladder per gel lane. The best separation occurs on a 1.2% agarose gel. Below 1%, the 50 bp fragment may not separate from the 150 bp fragment. For use on a fast electrophoresis system, follow the loading recommendations of the system's manufacturer (5 to 20 µl). The Fast DNA Ladder is suitable for use on the FlashGel® System from Lonza (1.2% gel) or on the E-Gel® system from Invitrogen (1.2 or 2% gels). The Fast DNA Ladder is not intended for precise quantification of DNA mass but can be used for approximating the mass of DNA in comparably intense samples of similar size.

The approximate mass of DNA in each of the bands in our Fast DNA Ladder is as follows (assuming a 20 µl [0.5 µg] load):

Fragment	Base Pairs	DNA Mass
1	10,000	36 ng
2	5,000	36 ng
3	3,000	36 ng
4	2,000	38 ng
5	1,500	28 ng
6	<b>1,000</b>	<b>108 ng</b>
7	766	43 ng
8	500	40 ng
9	300	33 ng
10	150	41 ng
11	50	61 ng

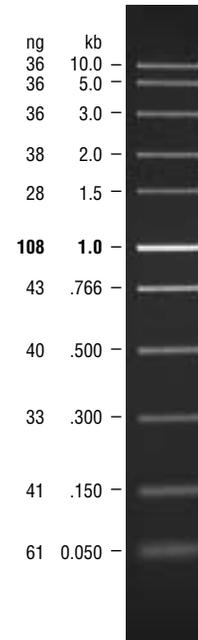
**Notes:** Fast DNA Ladder is stable for at least 6 months at 25°C.

For long term storage. Store at 4°C or –20°C. If stored at –20°C, mix well after thawing.

**Reference:**

1. Sambrook, J., Fritsch, E. F. and Maniatis, T. (1989). *Molecular Cloning: A Laboratory Manual*, (2nd ed.), (pp. 10.51–10.67). Cold Spring Harbor: Cold Spring Harbor Laboratory Press.

FlashGel® is a registered trademark of Lonza.  
E-Gel® is a registered trademark of Life Technologies.



Fast DNA Ladder.  
Mass values are for 0.5 µg/lane.

CERTIFICATE OF ANALYSIS

# Fast DNA Ladder



1-800-632-7799  
info@neb.com  
www.neb.com



N3238S 002120914091

## N3238S

50–200 gel lanes (1 ml) Lot: 0021209 Exp: 9/14

25 µg/ml Store at 4°C

**Description:** The Fast DNA ladder is a pre-mixed, ready-to-load molecular weight marker containing xylene cyanol FF dye as a tracking dye.

The DNA Ladder consists of proprietary plasmids, which are digested to completion with appropriate restriction enzymes to yield 11 bands suitable for use as molecular weight standards for fast electrophoresis systems as well as standard electrophoresis. The digested DNA includes fragments ranging from 50 base pairs to 10 kilobases. The 1 kb fragment has increased intensity to serve as reference band.

Supplied in: 0.0025% xylene cyanol FF, 5% glycerol, 5 mM Tris-HCl (pH 8.0) and 5 mM EDTA.

**Preparation:** The double-stranded DNA is digested to completion with appropriate restriction enzymes, phenol extracted and equilibrated in storage buffer.

**Usage Recommendation:** For standard electrophoresis applications, we recommend loading 20 µl (0.5 µg) of the Fast DNA Ladder per gel lane. The best separation occurs on a 1.2% agarose gel. Below 1%, the 50 bp fragment may not separate from the 150 bp fragment. For use on a fast electrophoresis system, follow the loading recommendations of the system's manufacturer (5 to 20 µl). The Fast DNA Ladder is suitable for use on the FlashGel® System from Lonza (1.2% gel) or on the E-Gel® system from Invitrogen (1.2 or 2% gels). The Fast DNA Ladder is not intended for precise quantification of DNA mass but can be used for approximating the mass of DNA in comparably intense samples of similar size.

The approximate mass of DNA in each of the bands in our Fast DNA Ladder is as follows (assuming a 20 µl [0.5 µg] load):

Fragment	Base Pairs	DNA Mass
1	10,000	36 ng
2	5,000	36 ng
3	3,000	36 ng
4	2,000	38 ng
5	1,500	28 ng
6	<b>1,000</b>	<b>108 ng</b>
7	766	43 ng
8	500	40 ng
9	300	33 ng
10	150	41 ng
11	50	61 ng

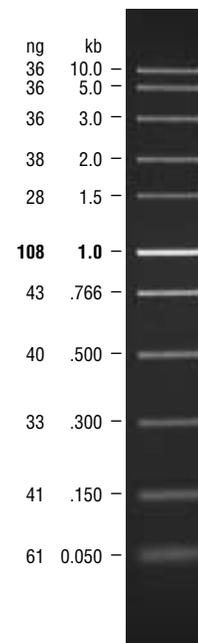
**Notes:** Fast DNA Ladder is stable for at least 6 months at 25°C.

For long term storage. Store at 4°C or –20°C. If stored at –20°C, mix well after thawing.

**Reference:**

1. Sambrook, J., Fritsch, E. F. and Maniatis, T. (1989). *Molecular Cloning: A Laboratory Manual*, (2nd ed.), (pp. 10.51–10.67). Cold Spring Harbor: Cold Spring Harbor Laboratory Press.

FlashGel® is a registered trademark of Lonza.  
E-Gel® is a registered trademark of Life Technologies.



Fast DNA Ladder.  
Mass values are for 0.5 µg/lane.

CERTIFICATE OF ANALYSIS