

TriDye™ 1 kb DNA Ladder



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



N3272S 010120914091

N3272S

125 gel lanes (1.25 ml) Lot: 0101209

50 µg/ml Store at 4°C Exp: 9/14

Description: TriDye™ 1 kb DNA Ladder is a pre-mixed, ready-to-load molecular weight marker containing 3 dyes which serve as visual aids to monitor the progress of migration during agarose gel electrophoresis.

The DNA Ladder consists of proprietary plasmids which are digested to completion with appropriate

**More Lanes, Same Price
Ready-to-load, Stable at 25°C**

restriction enzymes to yield 10 bands suitable for use as molecular weight standards for agarose gel electrophoresis. The digested DNA includes fragments ranging from 0.5–10.0 kilobases. The 3.0 kb fragment has increased intensity to serve as a reference band.

Supplied in: 0.006% xylene cyanol FF, 0.006% bromophenol blue, 0.06% orange G, 10% glycerol, 10 mM Tris-HCl (pH 7.9) and 10 mM EDTA.

TriDye During Electrophoresis



– xylene cyanol FF

– bromophenol blue

– orange G

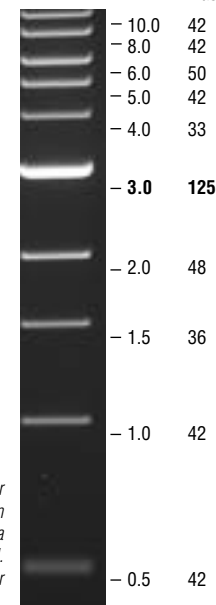
On a standard 1% agarose gel in 1X TBE, xylene cyanol FF migrates at approximately 4 kb, bromophenol blue at approximately 300 bp and the orange G at approximately 50 bp. As the percentage of agarose changes, the migration rates of the dyes relative to migration rates of the DNA will change.

TriDye Relative Migration Rates (approximate)

% agarose	xylene cyanol FF	bromophenol blue	orange G
0.5	20–40 kb	4,000 bp	150 bp
0.8	8,000 bp	400 bp	75 bp
1.0	4,000 bp	300 bp	50 bp
1.3	1,800 bp	150 bp	15 bp
1.5	1,200 bp	100 bp	10 bp
2.0	700 bp	65 bp	< 10 bp

Usage Recommendation: We recommend loading 10 µl (0.5 µg) of TriDye 1 kb DNA Ladder per gel lane. The TriDye 1 kb DNA Ladder was not designed 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 TriDye 1 kb DNA Ladder is indicated assuming a 10 µl (0.5 µg) load:

Kilobases Mass (ng)



1 kb DNA Ladder visualized by ethidium bromide staining on a 0.8% TAE agarose gel. Mass values are for 0.5 µg/lane.

(see other side)

CERTIFICATE OF ANALYSIS

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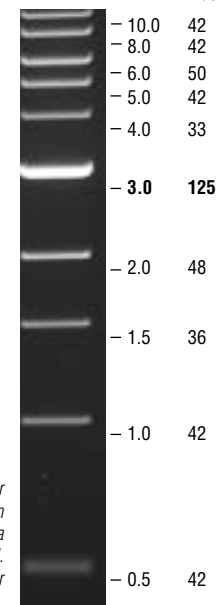
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(see other side)

CERTIFICATE OF ANALYSIS

Fragment	Base Pairs	DNA Mass
1	10,002	42 ng
2	8,001	42 ng
3	6,001	50 ng
4	5,001	42 ng
5	4,001	33 ng
6	3,001	125 ng
7	2,000	48 ng
8	1,500	36 ng
9	1,000	42 ng
10a	517	42 ng
10b	500	

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

Notes:

TriDye 1 kb 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: 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.

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