2-Log DNA Ladder (0.1-10.0 kb)

Catalog #	Size	Concentration	Gel Lanes	Price	Qty
N3200S	0.1 ml	1,000 µg/ml	200	**$54.00**	1
N3200L	0.5 ml	1,000 µg/ml	1000	**$216.00**	1

Categories: DNA Markers & Ladders Products

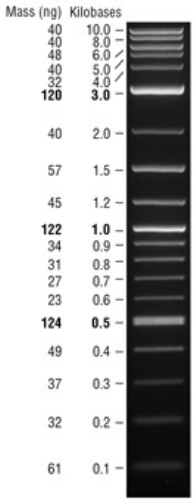
Applications: DNA Analysis

Product Information | FAQs | Protocols | Other Tools & Resources | Related Products | Tech Tips

Description | Properties and Usage

Description

A number of proprietary plasmids are digested to completion with appropriate restriction enzymes to yield 19 bands suitable for use as molecular weight standards for agarose gel electrophoresis. This digested DNA includes fragments ranging from 100 bp to 10 kb. The 0.5, 1.0 and 3.0 kb bands have increased intensity to serve as reference points. The approximate mass of DNA in each of the bands is provided (assuming a 1.0 µg load) for approximating the mass of DNA in comparably intense samples of similar size.
Comes supplied with 1 vial of Gel Loading Dye, Blue (6X).



2-Log DNA Ladder visualized by ethidium bromide staining on a 1.0% TBE agarose gel. Mass values are for 1 µg/lane.

Properties and Usage

Bases

Fragment	Mass	bp
1	40	10002
2	40	8001
3	48	6001
4	40	5001
5	32	4001
6	**120**	**3001**
7	40	2017
8	57	1517
9	45	1200
10	**122**	**1000**
11	34	900
12	31	800
13	27	700
14	23	600
15	**124**	**500/517**
16	49	400
17	37	300
18	32	200
19	61	100

Effective Size Range
100bp to 10,002bp

Storage Temperature
-20°C

Storage Conditions
10 mM Tris-HCl
1 mM EDTA
pH 8.0 @ 25°C

Notes

1. This 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.
2. We recommend loading 0.5-1 µg of the 2-Log DNA Ladder diluted in sample buffer.
3. All fragments have 4-base, 5´ overhangs that can be end labeled using T4 Polynucleotide Kinase (#M0201) or filled-in using DNA Polymerase I, Klenow Fragment (#M0210) (1). Use α-[32P] dATP or α-[32P] dTTP for the fill-in reaction.
4. 2-Log DNA Ladder is stable for at least 3 months at 4°C.
5. For long term storage, store at -20°C. If samples need to be diluted, use TE or other buffer of minimal ionic strength. DNA may denature if diluted in dH_20
6. **1X Gel Loading Dye, Blue**:
   2.5% Ficoll-400
   11 mM EDTA
   3.3 mM Tris-HCl (pH 8.0@25°C)
   0.017% SDS
   0.015% bromophenol blue
7. When DNA ladders are run on an acrylamide gel, some separation of the reference bands may be observed due to variations in the nucleic acid composition of the DNA molecules within that band.

References

1. Sambrook, J., Fritsch, E.F. and Maniatis, T. (1989). Molecular Cloning: A Laboratory Manual (2nd Ed.). 10.51-10.67.

Supporting Documents

Material Safety Datasheets
The following is a list of Material Safety Data Sheets (MSDS) that apply to this product to help you use it safely. The following file naming structure is used to name these document files: [Product Name]MSDS. For international versions please contact us at info@neb.com.
2-Log DNA Ladder (0.1-10.0 kb) MSDS

Datacards
The Product Summary Sheet, or Data Card, includes details for how to use the product, as well as details of its formulation and quality controls. The following file naming structure is used to name the majority of these document files: [Catalog Number]Datasheet-Lot[Lot Number]. For those product lots not listed below, please contact NEB at info@neb.com or fill out the Technical Support Form for appropriate document.

- N3200S-0571112
- N3200SDatasheet-Lot0591204
- N3200SDatasheet-Lot0601207
- N3200Datasheet-Lot0591204
- N3200Datasheet-Lot0601207
- N3200Datasheet-Lot0611210
- N3200Datasheet-Lot0621211

1. Why are there extra bands visible on polyacrylamide gels?
2. What are the overhangs on the DNA ladder fragments? Can I end-label them using the T4 polynucleotide kinase (PNK)? What about the Klenow fragment?
3. Why are the DNA ladders showing up on my Southern blot? What is the sequence or composition of the ladder bands?
4. How can I quantify the amount of DNA in each band of a marker?
5. Can I use GelRed with the DNA Ladders from NEB?

1. End-labeling Protocol
2. Suggested protocol for loading a sample (N3200)

Selection Tools

Selection Tools

- DNA Markers & Ladders Selection Chart

Companion Products
- 1 kb DNA Ladder
- 100 bp DNA Ladder
- 50 bp DNA Ladder
- PCR Marker
- Quick-Load® 1 kb DNA Ladder
- Quick-Load® 100 bp DNA Ladder
- Quick-Load® 2-Log DNA Ladder(0.1-10.0 kb)
- TriDye™ 1 kb DNA Ladder
- TriDye™ 100 bp DNA Ladder
- TriDye™ 2-Log DNA Ladder (0.1 - 10.0 kb)
- Gel Loading Dye, Blue (6X)

Materials Sold Separately
- Gel Loading Dye, Blue (6X)

To make it ready-to-load, dilute in TE buffer instead of water.