Lambda DNA–MonoCut Mix

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

N3019S 018111113111

N3019S

100 gel lanes (50 µg) **Lot: 0181111**

500 µg/ml **Store at –20°C** **Exp: 11/13**

1.5 ml Gel Loading Dye, Blue (6X) **Store at 25°C**

Description: The Mono Cut Mix is a mixture of intact lambda DNA and lambda DNA separately digested with ApaI, KpnI, XbaI and XhoI. The fragments have been filled in with DNA Polymerase I Large (Klenow) Fragment to prevent re-annealing.

Note: These fragments are best separated by Pulsed Field Gel Electrophoresis. Alternatively, Lambda DNA-MonoCut Mix can be separated by conventional gel electrophoresis using the following conditions: 0.5 µg Lambda DNA MonoCut Mix, 0.4% agarose gel, 1X TAE, 10V, 25°C for 24 hours.

Source: The phage is isolated from the heat-inducible lysogen *E. coli* λ c1857 S7 and then isolated from the purified phage by phenol extraction and dialyzed. The double-stranded DNA is then digested to completion with the appropriate enzyme, phenol extracted and dialyzed against 10 mM Tris-HCl (pH 8.0) and 1 mM EDTA.

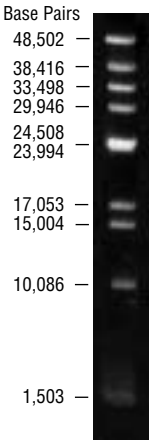
Supplied in: 10 mM Tris-HCl (pH 8.0) and 1 mM EDTA.

Reagents supplied:
6X Gel Loading Dye, Blue

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

Usage Recommendations: The approximate mass of DNA in each of the bands in our Lambda DNA-Mono Cut Mix is as follows (assuming a 0.5 µg loading):

Fragment	Base Pairs	DNA Mass
1	48,502	100 ng
2	38,416	79 ng
3	33,498	69 ng
4	29,946	62 ng
5	24,508	51 ng
6	23,994	49 ng
7	17,053	35 ng
8	15,004	31 ng
9	10,086	21 ng
10	1,503	3 ng



PFGE separation of 0.5 µg of Lambda Mono Cut Mix. 1% agarose gel, 0.5X TBE, 6 V/cm, 15°C for 20 hours. Switch times ramped from 0.5–1.5 seconds.

(see other side)

CERTIFICATE OF ANALYSIS

Lambda DNA–MonoCut Mix

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

N3019S 018111113111

N3019S

100 gel lanes (50 µg) Lot: 0181111

500 µg/ml Store at –20°C Exp: 11/13

1.5 ml Gel Loading Dye, Blue (6X) Store at 25°C

Description: The Mono Cut Mix is a mixture of intact lambda DNA and lambda DNA separately digested with ApaI, KpnI, XbaI and XhoI. The fragments have been filled in with DNA Polymerase I Large (Klenow) Fragment to prevent re-annealing.

Note: These fragments are best separated by Pulsed Field Gel Electrophoresis. Alternatively, Lambda DNA-MonoCut Mix can be separated by conventional gel electrophoresis using the following conditions: 0.5 µg Lambda DNA MonoCut Mix, 0.4% agarose gel, 1X TAE, 10V, 25°C for 24 hours.

Source: The phage is isolated from the heat-inducible lysogen E. coli λ c1857 S7 and then isolated from the purified phage by phenol extraction and dialyzed. The double-stranded DNA is then digested to completion with the appropriate enzyme, phenol extracted and dialyzed against 10 mM Tris-HCl (pH 8.0) and 1 mM EDTA.

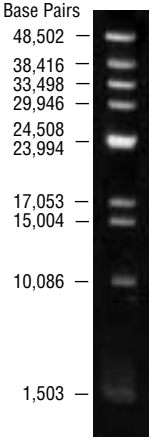
Supplied in: 10 mM Tris-HCl (pH 8.0) and 1 mM EDTA.

Reagents supplied:
6X Gel Loading Dye, Blue

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

Usage Recommendations: The approximate mass of DNA in each of the bands in our Lambda DNA-Mono Cut Mix is as follows (assuming a 0.5 µg loading):

Fragment	Base Pairs	DNA Mass
1	48,502	100 ng
2	38,416	79 ng
3	33,498	69 ng
4	29,946	62 ng
5	24,508	51 ng
6	23,994	49 ng
7	17,053	35 ng
8	15,004	31 ng
9	10,086	21 ng
10	1,503	3 ng



PFGE separation of 0.5 µg of Lambda Mono Cut Mix. 1% agarose gel, 0.5X TBE, 6 V/cm, 15°C for 20 hours. Switch times ramped from 0.5–1.5 seconds.

(see other side)

CERTIFICATE OF ANALYSIS

Suggested protocol for loading a sample:

The following protocol is recommended for a 5 mm wide lane.

1. Prepare loading mixture:

Distilled water	4 µl
6X Blue Loading Dye	1 µl
DNA Ladder	1 µl
Total volume	6 µl

2. Mix gently
3. Load onto the agarose gel

Note: The components of the mixture should be scaled up or down, depending on the width of the agarose gel.

Reference:

1. Daniels, D.L. et al. (1983). In R.W. Hendrix, J.W. Roberts, F.W. Stahl and R.A. Weisberg (Eds.), *Lambda-II* (pp. 519–676). New York: Cold Spring Harbor Laboratory Press.

Suggested protocol for loading a sample:

The following protocol is recommended for a 5 mm wide lane.

1. Prepare loading mixture:

Distilled water	4 µl
6X Blue Loading Dye	1 µl
DNA Ladder	1 µl
Total volume	6 µl

2. Mix gently
3. Load onto the agarose gel

Note: The components of the mixture should be scaled up or down, depending on the width of the agarose gel.

Reference:

1. Daniels, D.L. et al. (1983). In R.W. Hendrix, J.W. Roberts, F.W. Stahl and R.A. Weisberg (Eds.), *Lambda-II* (pp. 519–676). New York: Cold Spring Harbor Laboratory Press.

Page 2 (N3019)