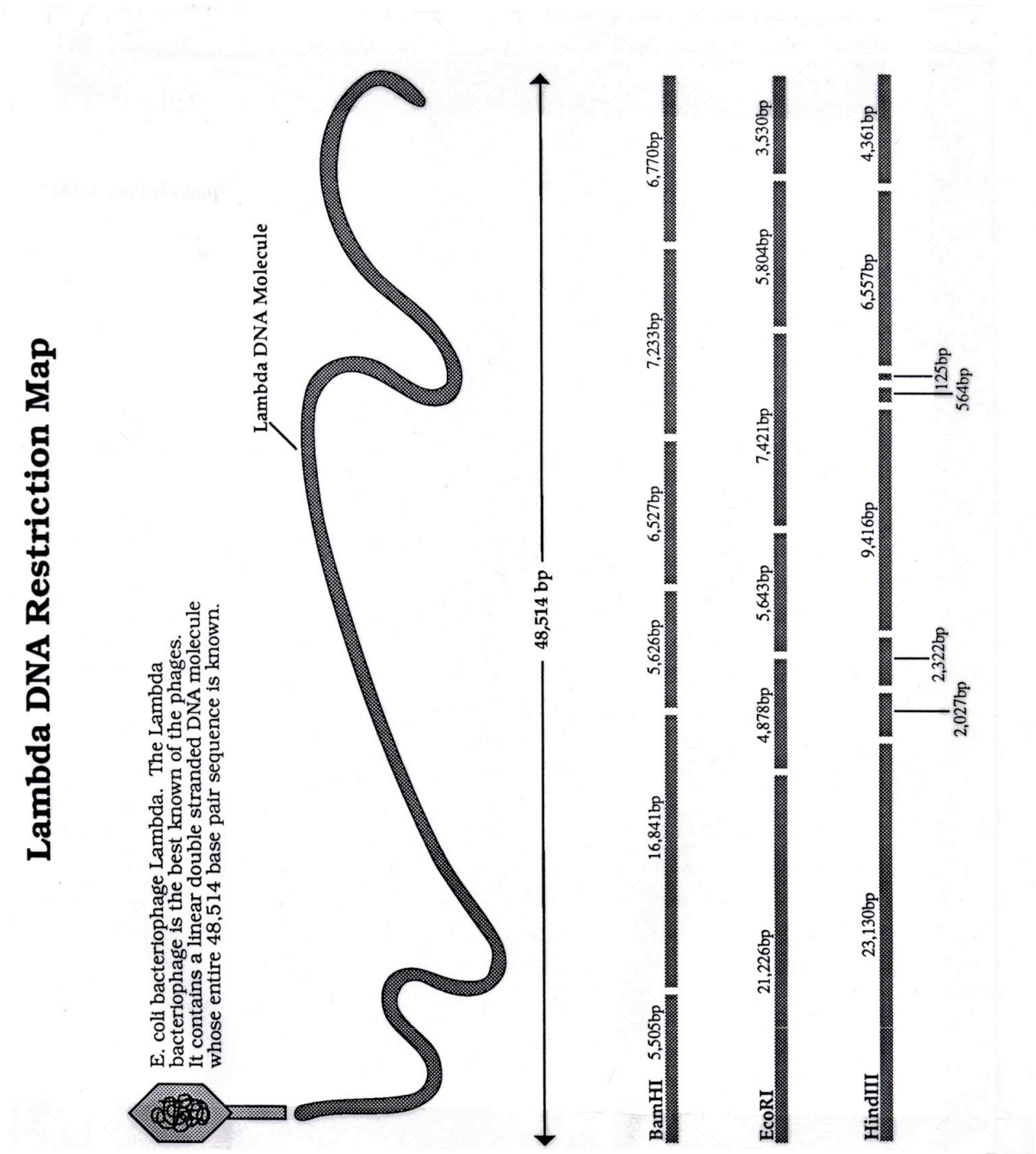


Taken from A Sourcebook of Biotechnology Activities, published by the National Association of Biology Teachers, 1990. ISBN 0-941212-09-2

NEBuffer	1	2	3	4
% Activity	75	100	50	75

*Bam*H I

Source: An *E. coli* strain that carries the cloned *Bam*H I gene from *Bacillus amyloliquefaciens* H (ATCC 49763)

Reaction Buffer: NEBuffer *Bam*H I + BSA
150 mM NaCl, 10 mM Tris-HCl, 10 mM $MgCl_2$, 1 mM dithiothreitol (pH 7.9 @ 25°C). Supplement with 100 µg/ml BSA. Incubate at 37°C.

Ligation and Recutting: After 50-fold overdigestion with *Bam*H I, > 95% of the DNA fragments can be ligated and recut.

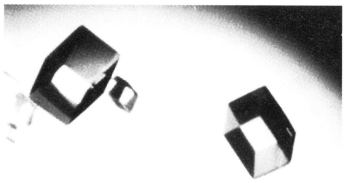
Concentration: 20,000 and 100,000 units/ml. Assayed on λ DNA.

Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM dithiothreitol, 200 µg/ml BSA, and 50% glycerol. Store at –20°C.

Diluent Compatibility: Diluent A, see page 205.

Heat Inactivation: 80°C for 20 minutes.

Note: Conditions of low ionic strength, high enzyme concentration, glycerol concentration >5%, or pH >8.0 may result in star activity (see page 213). For performing double digests with *Bam*H I, see page 204. *Bam*H I is **not** blocked by *dam* methylation.



BamH I crystals (Lydia Dorner and Ira Schildkraut, New England Biolabs)

#R0136S	10,000 units	$50
#R0136L	50,000 units	$200

for high (5X) concentration, order #R0136T (10,000 units) or #R0136M (50,000 units)

5′...G▼GATCC...3′
3′...CCTAG▲G...5′

NEBuffer	1	2	3	4
% Activity	100	100	100	100

*Eco*R I

Source: An *E. coli* strain that carries the cloned *Eco*R I gene from *E. coli* RY13 (R.N. Yoshimori)

Reaction Buffer: NEBuffer *Eco*R I
50 mM NaCl, 100 mM Tris-HCl, 10 mM $MgCl_2$, 0.025% Triton X-100 (pH 7.5 @ 25°C). Incubate at 37°C.

Ligation and Recutting: After 100-fold overdigestion with *Eco*R I, > 95% of the DNA fragments can be ligated and recut.

Concentration: 20,000 and 100,000 units/ml. Assayed on λ DNA.

Storage Conditions: 300 mM NaCl, 10 mM KPO_4 (pH 7.5), 0.1 mM EDTA, 10 mM 2-mercaptoethanol, 0.15% Triton X-100, 200 µg/ml BSA, and 50% glycerol. Store at –20°C.

Diluent Compatibility: Diluent C, see page 205.

Heat Inactivation: 65°C for 20 minutes.

Note: Conditions of low ionic strength, high enzyme concentration, glycerol concentration >5%, or pH >8.0 may result in star activity (see page 213). For performing double digests with *Eco*R I, see page 204.

#R0101S	10,000 units	$50
#R0101L	50,000 units	$200

for high (5X) concentration, order #R0101T (10,000 units) or #R0101M (50,000 units)

5′...G▼AATTC...3′
3′...CTTAA▲G...5′

Hind III

#R0104S	10,000 units	$50
#R0104L	50,000 units	$200

for high (5X) concentration, order #R0104T (10,000 units) or #R0104M (50,000 units)

5′...A▼AGCTT...3′
3′...TTCGA▲A...5′

NEBuffer	1	2	3	4
% Activity	50	100	10	50

Source: An *E. coli* strain that carries the cloned *Hind* III gene from *Haemophilus influenzae* Rd (ATCC 51907)

Reaction Buffer: NEBuffer 2
50 mM NaCl, 10 mM Tris-HCl, 10 mM $MgCl_2$, 1 mM dithiothreitol (pH 7.9 @ 25°C). Incubate at 37°C.

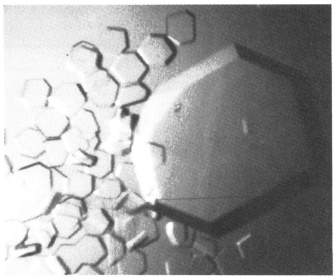
Ligation and Recutting: After 200-fold overdigestion with *Hind* III, > 95% of the DNA fragments can be ligated and recut.

Concentration: 20,000 and 100,000 units/ml. Assayed on λ DNA.

Storage Conditions: 250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM dithiothreitol, 500 µg/ml BSA, and 50% glycerol. Store at –20°C.

Diluent Compatibility: Diluent B, see page 205.

Heat Inactivation: 65°C for 20 minutes.



Hind III crystals (Ira Schildkraut and Lydia Dorner, New England Biolabs)

Cloned at NEBiolabs · Recombinant Enzyme · Optimum Buffer · Incubation Temperature · Requires BSA · Methylation Sensitivity · Heat Inactivation · Blue/White Certified