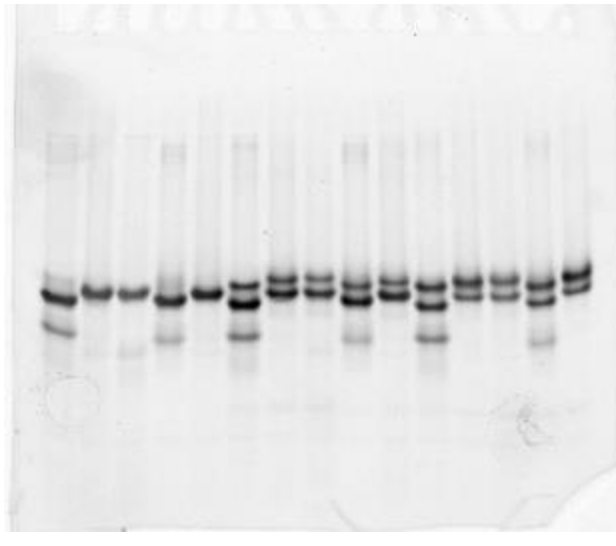
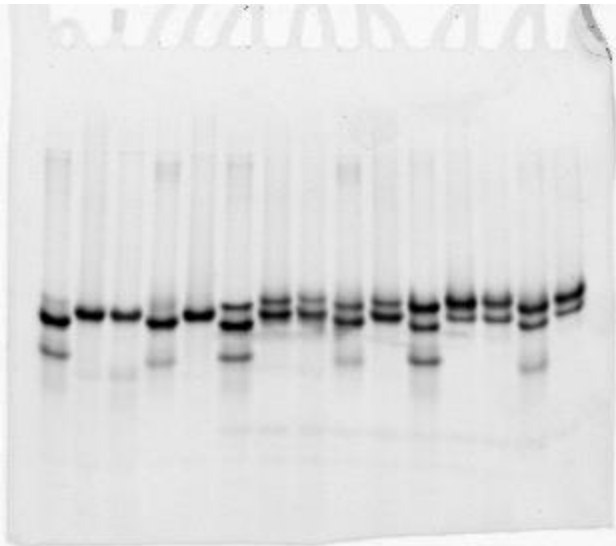
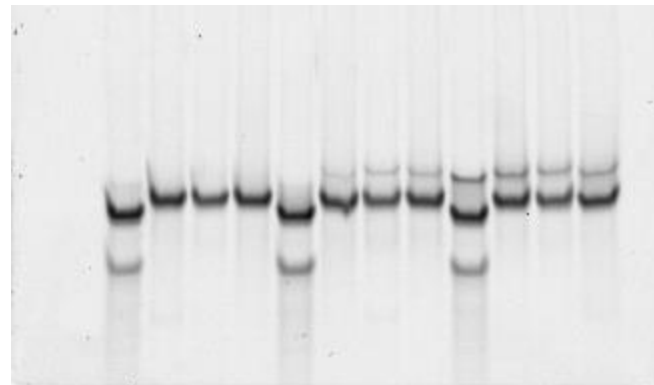
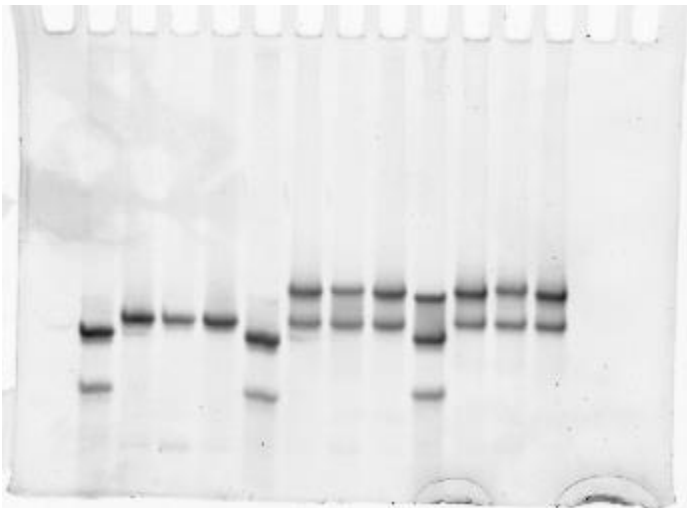


2:1 ratio TFO:heteroduplex
0.5 h

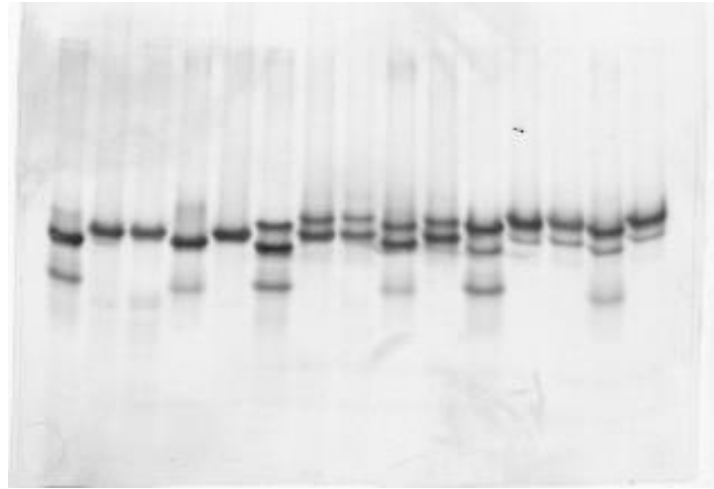
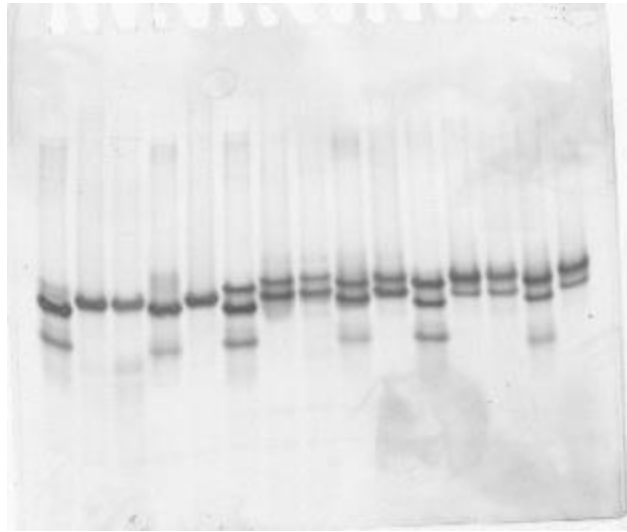


- From left to right:
- 1= dupDNA45
 - 2= 1D1L
 - 3= 2L2D
 - 4= 5midL
 - 5= 2D1L
 - 6= dupDNA45+TFO
 - 7= 1D1L+TFO
 - 8= 2L2D+TFO
 - 9= 5midL+TFO
 - 10= 2D1L+TFO
 - 11= dupDNA45+TFO+BQQ
 - 12= 1D1L+TFO+BQQ
 - 13= 2L2D+TFO+BQQ
 - 14= 5midL+TFO+BQQ
 - 15= 2D1L+TFO+BQQ

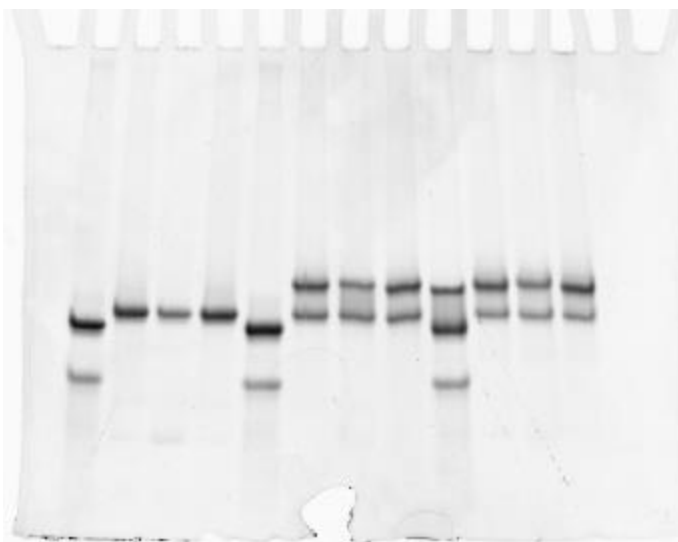
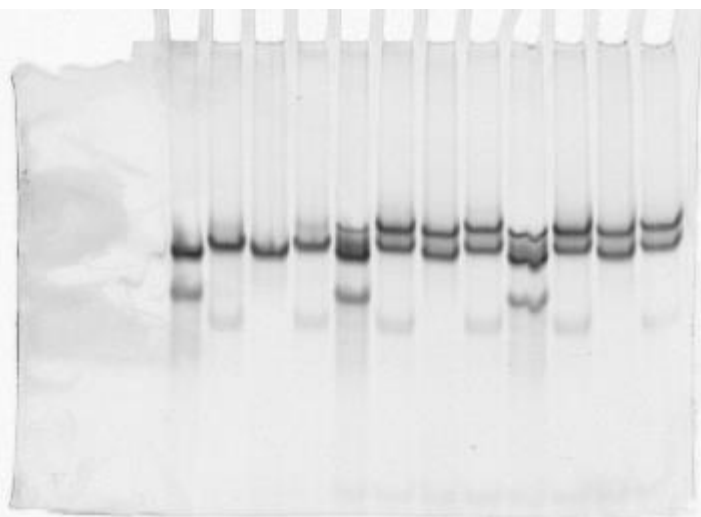


- From left to right:
- 1= dupDNA45
 - 2= 1D1L
 - 3= 2L2D
 - 4= 2D1L
 - 5= dupDNA45+TFO
 - 6= 1D1L+TFO
 - 7= 2L2D+TFO
 - 8= 2D1L+TFO
 - 9= dupDNA45+TFO+BQQ
 - 10= 1D1L+TFO+BQQ
 - 11= 2L2D+TFO+BQQ
 - 12= 2D1L+TFO+BQQ

2:1 ratio TFO:heteroduplex 1 h

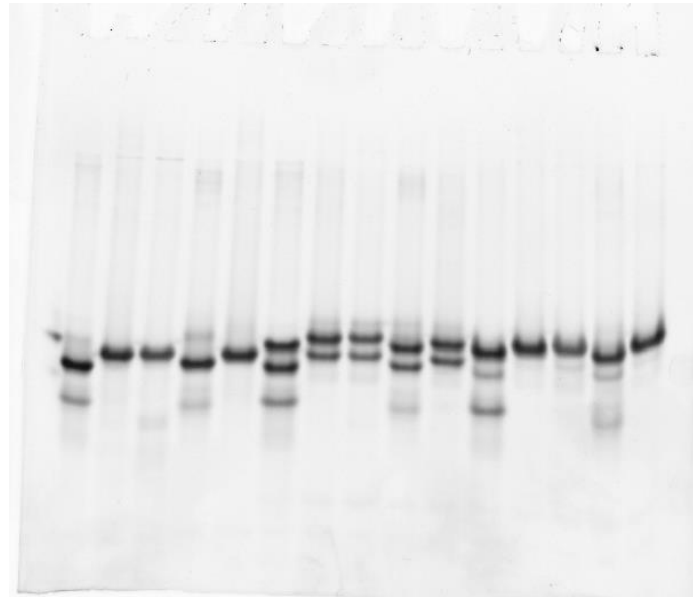
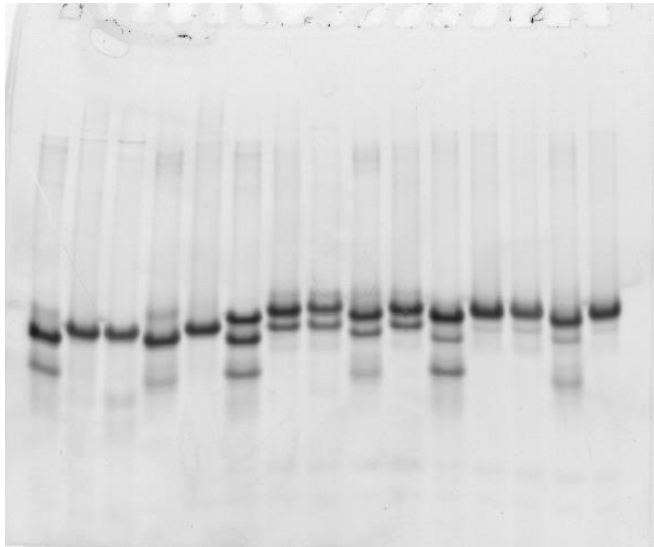


From left to right:
1= dupDNA45
2= 1D1L
3= 2L2D
4= 5midL
5= 2D1L
6= dupDNA45+TFO
7= 1D1L+TFO
8= 2L2D+TFO
9= 5midL+TFO
10= 2D1L+TFO
11= dupDNA45+TFO+BQQ
12= 1D1L+TFO+BQQ
13= 2L2D+TFO+BQQ
14= 5midL+TFO+BQQ
15= 2D1L+TFO+BQQ

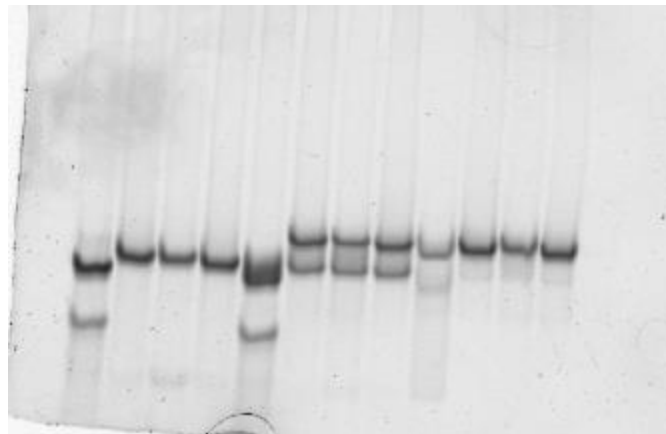
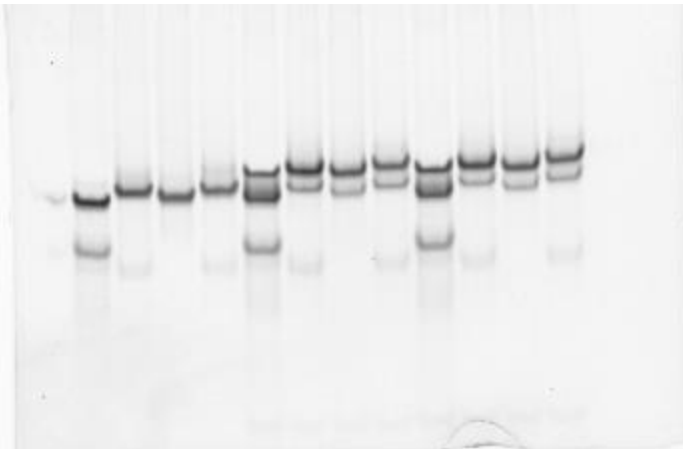


From left to right:
1= dupDNA45
2= 1D1L
3= 2L2D
4= 2D1L
5= dupDNA45+TFO
6= 1D1L+TFO
7= 2L2D+TFO
8= 2D1L+TFO
9= dupDNA45+TFO+BQQ
10= 1D1L+TFO+BQQ
11= 2L2D+TFO+BQQ
12= 2D1L+TFO+BQQ

2:1 ratio TFO:heteroduplex 24 h

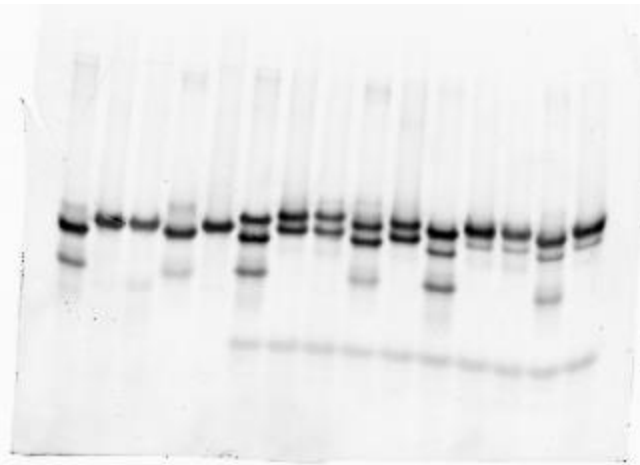
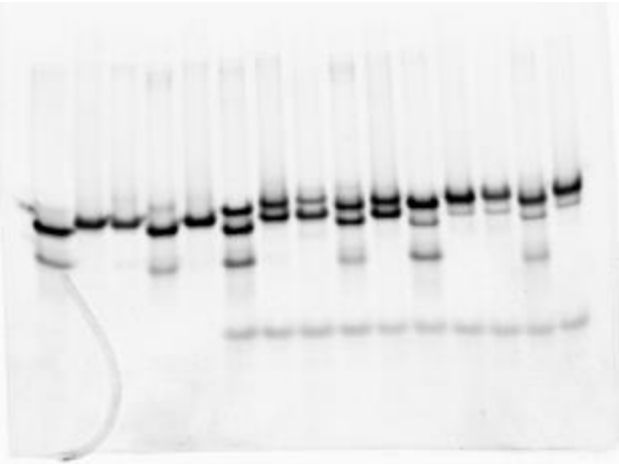


From left to right:
1= dupDNA45
2= 1D1L
3= 2L2D
4= 5midL
5= 2D1L
6= dupDNA45+TFO
7= 1D1L+TFO
8= 2L2D+TFO
9= 5midL+TFO
10= 2D1L+TFO
11= dupDNA45+TFO+BQQ
12= 1D1L+TFO+BQQ
13= 2L2D+TFO+BQQ
14= 5midL+TFO+BQQ
15= 2D1L+TFO+BQQ

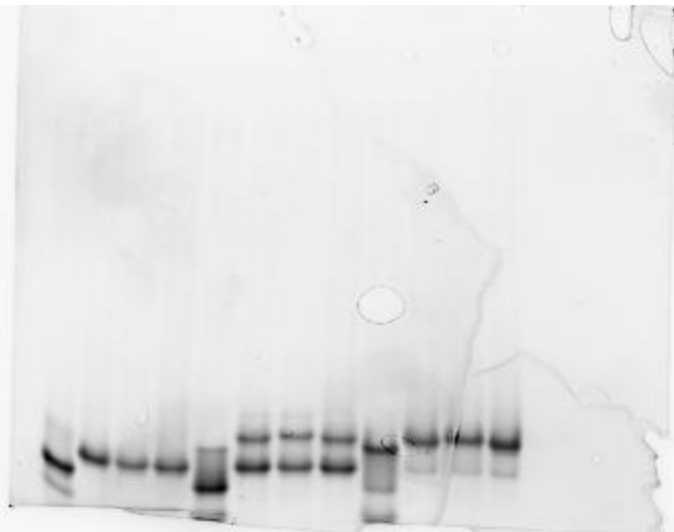
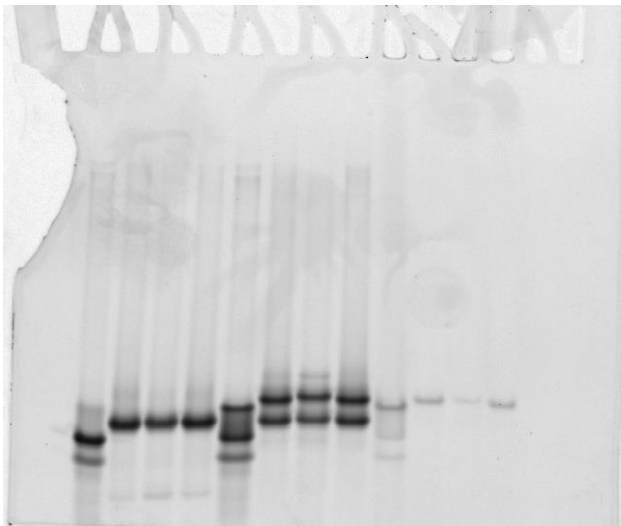


From left to right:
1= dupDNA45
2= 1D1L
3= 2L2D
4= 2D1L
5= dupDNA45+TFO
6= 1D1L+TFO
7= 2L2D+TFO
8= 2D1L+TFO
9= dupDNA45+TFO+BQQ
10= 1D1L+TFO+BQQ
11= 2L2D+TFO+BQQ
12= 2D1L+TFO+BQQ

24:1 ratio TFO:heteroduplex
0.5 h

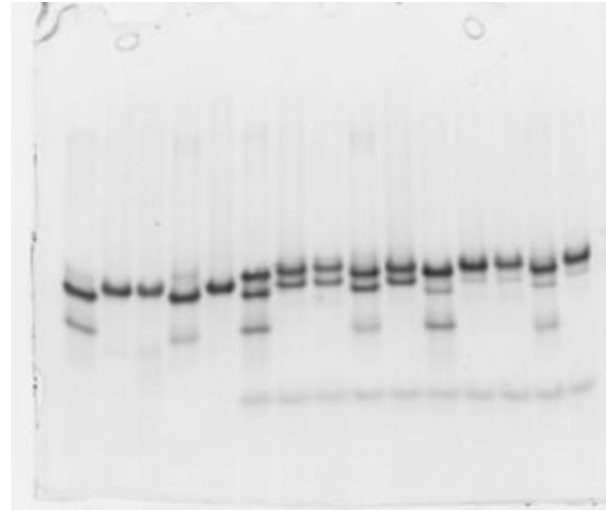
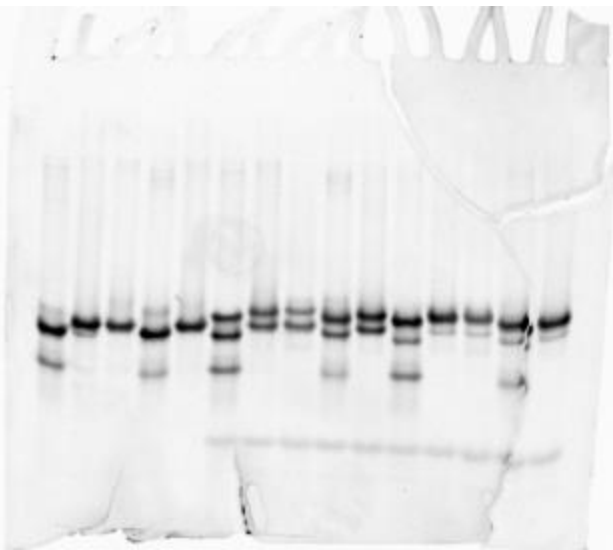


- From left to right:
- 1= dupDNA45
 - 2= 1D1L
 - 3= 2L2D
 - 4= 5midL
 - 5= 2D1L
 - 6= dupDNA45+TFO
 - 7= 1D1L+TFO
 - 8= 2L2D+TFO
 - 9= 5midL+TFO
 - 10= 2D1L+TFO
 - 11= dupDNA45+TFO+BQQ
 - 12= 1D1L+TFO+BQQ
 - 13= 2L2D+TFO+BQQ
 - 14= 5midL+TFO+BQQ
 - 15= 2D1L+TFO+BQQ

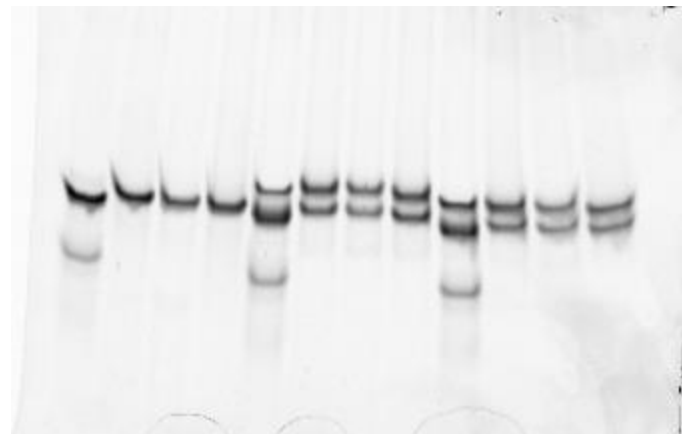
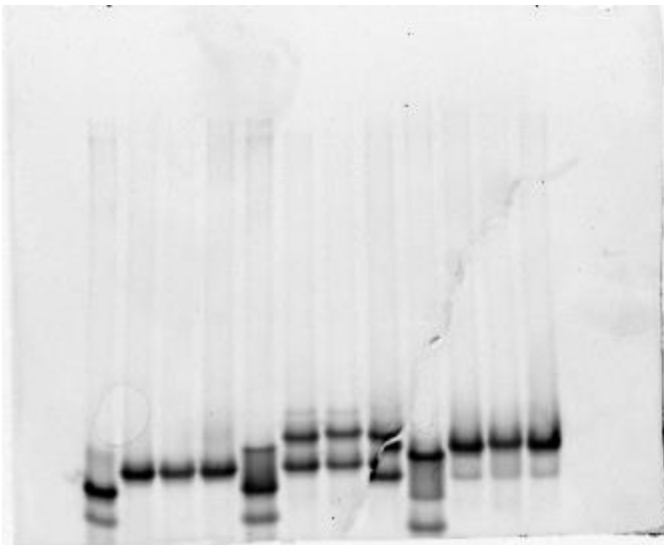


- From left to right:
- 1= dupDNA45
 - 2= 1D1L
 - 3= 2L2D
 - 4= 2D1L
 - 5= dupDNA45+TFO
 - 6= 1D1L+TFO
 - 7= 2L2D+TFO
 - 8= 2D1L+TFO
 - 9= dupDNA45+TFO+BQQ
 - 10= 1D1L+TFO+BQQ
 - 11= 2L2D+TFO+BQQ
 - 12= 2D1L+TFO+BQQ

24:1 ratio TFO:heteroduplex 1 h

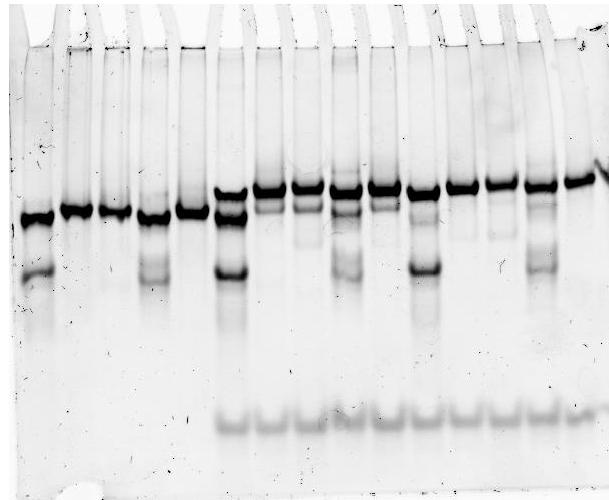
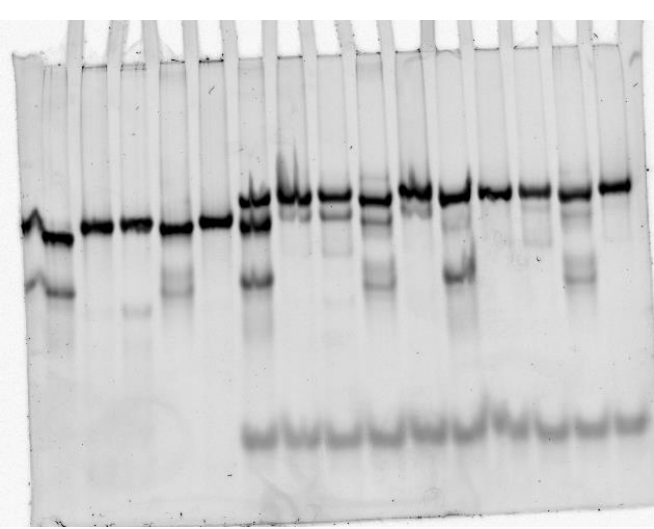


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 - 2= 1D1L
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 - 4= 5midL
 - 5= 2D1L
 - 6= dupDNA45+TFO
 - 7= 1D1L+TFO
 - 8= 2L2D+TFO
 - 9= 5midL+TFO
 - 10= 2D1L+TFO
 - 11= dupDNA45+TFO+BQQ
 - 12= 1D1L+TFO+BQQ
 - 13= 2L2D+TFO+BQQ
 - 14= 5midL+TFO+BQQ
 - 15= 2D1L+TFO+BQQ

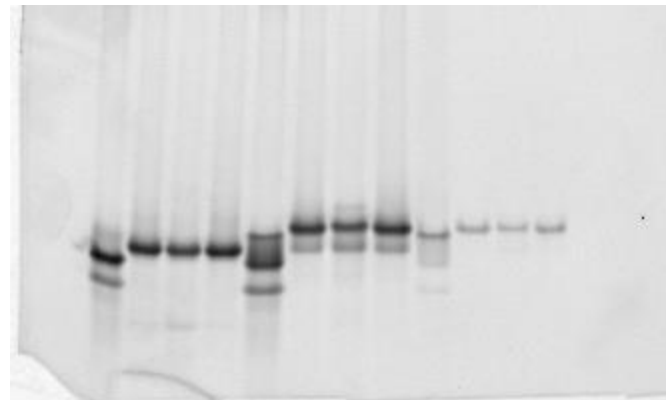
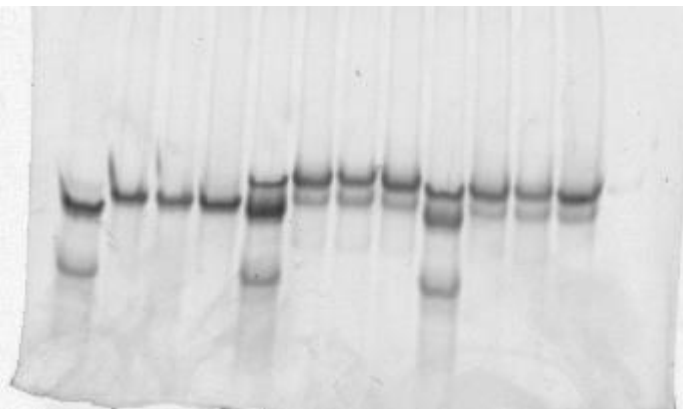


- From left to right:
- 1= dupDNA45
 - 2= 1D1L
 - 3= 2L2D
 - 4= 2D1L
 - 5= dupDNA45+TFO
 - 6= 1D1L+TFO
 - 7= 2L2D+TFO
 - 8= 2D1L+TFO
 - 9= dupDNA45+TFO+BQQ
 - 10= 1D1L+TFO+BQQ
 - 11= 2L2D+TFO+BQQ
 - 12= 2D1L+TFO+BQQ

24:1 ratio TFO:heteroduplex
24 h



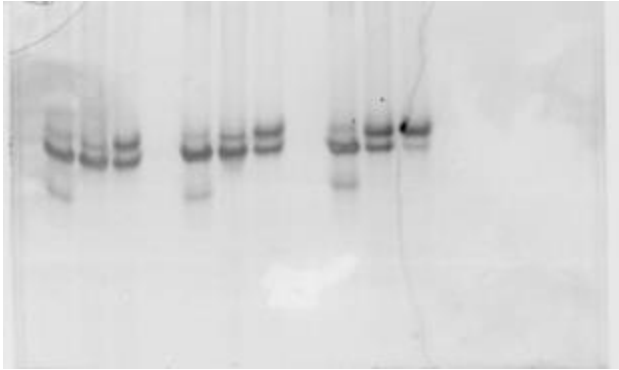
- From left to right:
- 1= dupDNA45
 - 2= 1D1L
 - 3= 2L2D
 - 4= 5midL
 - 5= 2D1L
 - 6= dupDNA45+TFO
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 - 8= 2L2D+TFO
 - 9= 5midL+TFO
 - 10= 2D1L+TFO
 - 11= dupDNA45+TFO+BQQ
 - 12= 1D1L+TFO+BQQ
 - 13= 2L2D+TFO+BQQ
 - 14= 5midL+TFO+BQQ
 - 15= 2D1L+TFO+BQQ



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 - 4= 2D1L
 - 5= dupDNA45+TFO
 - 6= 1D1L+TFO
 - 7= 2L2D+TFO
 - 8= 2D1L+TFO
 - 9= dupDNA45+TFO+BQQ
 - 10= 1D1L+TFO+BQQ
 - 11= 2L2D+TFO+BQQ
 - 12= 2D1L+TFO+BQQ

5midL extra time points

2:1 ratio TFO:heteroduplex



From left to right:

1= 5midL 0.5h

2= 5midL+TFO 0.5h

3= 5midL+TFO +BQQ 0.5h

4= 5midL 1h

5= 5midL+TFO 1h

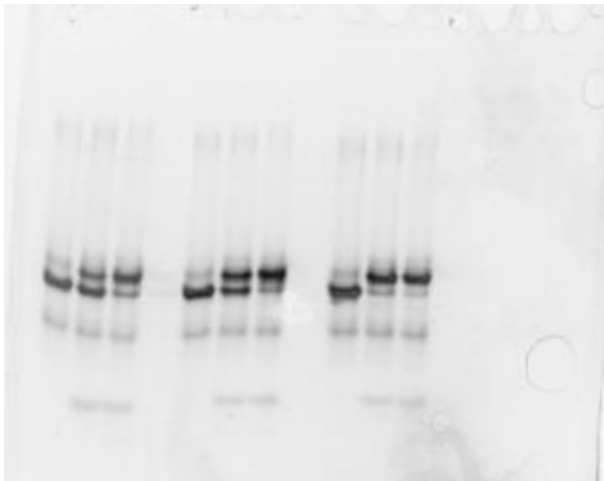
6= 5midL+TFO+BQQ 1h

7= 5midL 24h

8= 5midL+TFO 24h

9= 5midL+TFO+BQQ 24h

24:1 ratio TFO:heteroduplex



From left to right:

1= 5midL 0.5h

2= 5midL+TFO 0.5h

3= 5midL+TFO +BQQ 0.5h

4= 5midL 1h

5= 5midL+TFO 1h

6= 5midL+TFO+BQQ 1h

7= 5midL 24h

8= 5midL+TFO 24h

9= 5midL+TFO+BQQ 24h