

RE used = *eco*RI

Dna sequence 1 =

```
gtggtacgggggtgatgaattctaggtcaaagtagtaattaattattagccaccgacccatagtgactaagaga  
tactatagatcgcatgacgcgtacacagcccaacagaaggcaaatactcatttcggtatctcctaactgctcgt  
aaggatgggtcgagaggggataccttcggatagaattcgctttactgacatcttatgcgaccgggcaagttgacgg  
aactgacgacgttatcatacccttagactctaattacacattcttgaaccgagatgactgagtagaagggagct  
gcatcacgggtgcaattttgacagcgcatacttggccgaaaaatctgttgccgaaaatctatgcggtgcgcaa  
gtagagttatcccttgctcgggtctcggttatgtcaggctcgtacgaccgtgatcttcagtcctacactcctcact  
ccgagctggaattctcttgacgacgatcgatatcagatgaccagcgcgcccgtttggca
```

Code's results =

Cleavages =

```
gtggtacgggggtgatg|aattctaggtcaaagtagtaattaattattagccaccgacccatagtgactaagag  
atactatagatcgcatgacgcgtacacagcccaacagaaggcaaatactcatttcggtatctcctaactgctcg  
taaggatgggtcgagaggggataccttcggatag|aattcgctttactgacatcttatgcgaccgggcaagttgac  
ggaactgacgacgttatcatacccttagactctaattacacattcttgaaccgagatgactgagtagaagggag  
ctgcatcacgggtgcaattttgacagcgcatacttggccgaaaaatctgttgccgaaaatctatgcggtgcgcc  
aagtagagttatcccttgctcgggtctcggttatgtcaggctcgtacgaccgtgatcttcagtcctacactcctca  
ctccgagctgg|aattctcttgacgacgatcgatatcagatgaccagcgcgcccgtttggca
```

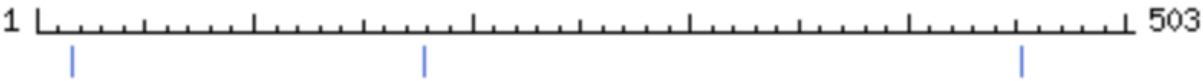
indexes of cleavages =

```
fragment 1 starts at 1 and ends at 17.  
it's size is 17  
fragment 2 starts at 18 and ends at 179.  
it's size is 162  
fragment 3 starts at 180 and ends at 453.  
it's size is 274  
fragment 4 starts at 454 and ends at 503.  
it's size is 50
```

On using online mapper, we get the following cut sites on the W strands

Fragment list

unnamed sequence digested with EcoRI



#	Location	Size [bp]
1	180-453	274
2	18-179	162
3	454-503	50
4	1-17	17

Dna sequence 2

```
ttcctttgctcccagcggttccgatgccggggacaccgacatccacgtggccgacagtattactggccgcgaca
ccgagtgcgtagccagtagtctaggtggcg|aattcggtcactcatgagctcaggttccgatccttagcacgcc
acaagg|aattccttaggctcatatcccgggtataggtcctatcaaaagccggtgactcttcaattgaagtgggt
tgaacgactgggaatcatgcatgccggatcgtcttcgggctgcaagtacagctaatccgcatatgcaaaaaat
gagctttaggcctcattgcttttgccttagtcttctcgccagcgcatagatgtatcagcataggagacggct
ctttagcaagtgg|aattcctgaggcgtaacag|aattcaaaacaaatacagagctgaaatgaacgggtgctaca
ggctgcaggaaagtcctcaattgtttagcctgaaaaaataaattctacagtctgagataaccgctgatctggaa
aggatgcgcaagtgtcattactgcttcgatgatcgggttggttcggtaaatctgaatcct
```

code's results =

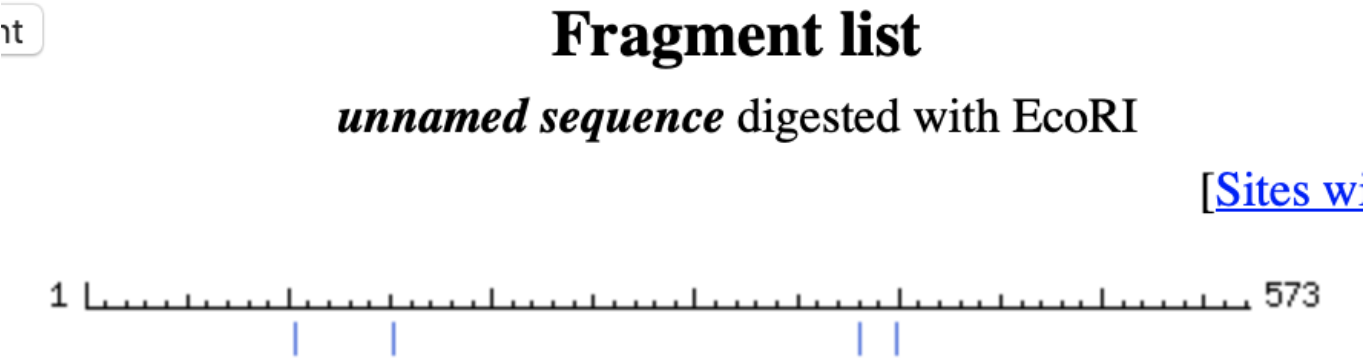
Cleavages -

```
ttcctttgctcccagcggttccgatgccggggacaccgacatccacgtggccgacagtattactggccgcgaca
ccgagtgcgtagccagtagtctaggtggcg|aattcggtcactcatgagctcaggttccgatccttagcacgcc
acaagg|aattccttaggctcatatcccgggtataggtcctatcaaaagccggtgactcttcaattgaagtgggt
tgaacgactgggaatcatgcatgccggatcgtcttcgggctgcaagtacagctaatccgcatatgcaaaaaat
gagctttaggcctcattgcttttgccttagtcttctcgccagcgcatagatgtatcagcataggagacggct
ctttagcaagtgg|aattcctgaggcgtaacag|aattcaaaacaaatacagagctgaaatgaacgggtgctaca
ggctgcaggaaagtcctcaattgtttagcctgaaaaaataaattctacagtctgagataaccgctgatctggaa
aggatgcgcaagtgtcattactgcttcgatgatcgggttggttcggtaaatctgaatcct
```

indexes of cleavages =

```
fragment 1 starts at 1 and ends at 104.  
it's size is 104  
fragment 2 starts at 105 and ends at 153.  
it's size is 49  
fragment 3 starts at 154 and ends at 381.  
it's size is 228  
fragment 4 starts at 382 and ends at 400.  
it's size is 19  
fragment 5 starts at 401 and ends at 573.  
it's size is 173
```

On using online mapper, we get the following cut sites on the W strands



#	Location	Size [bp]
1	154-381	228
2	401-573	173
3	1-104	104
4	105-153	49
5	382-400	19

Dna sequence 3

```
ggtccttgggaagcattaggtcccgtctttgtgtaaatctcatgcgtttggttaagtaatgggcacctcagggct  
gttcgatctgccgactgtggggtcagttacgtaagccatgggtaccgagaattcggttaaggcagtgattgacag  
taaactcgaggcacaaccgtagtggcattcgacaactgcggatccgattctttccccagccagtcgtgcaga  
ggttgacttccttgtttgcctgccaatcacgtgaaggaagagcgtatagcttttttgccttgtaccgctatgt  
tttggtaccgtatgaagggcccttccaacagaccaagggtagagcaaactcgtcctgtgctaaacgccattgtaa  
tgtttcctcgtagctggaccctttggtcgcagttacgagtactatctaaagcattactttgaactctcatcgcc  
gcgtgcactgacagtcgcgtacgcgtccgctatgcggactttgcacctctgagtctaagccatacaatacacat  
cagcgcgcagaattctacaccatatgaattcgctgagcatctaaagctccgttttcgccctaaccctagagaggc  
acgcaggttcacatgataattgcctgcttgagaaaactcgagctagcattttgacagagcatcaagcttaacga  
attgat
```

code's results =

Cleavages -

```
ggtccttggaagcattaggtcccgtctttgtgtaaattcatgcgtttggaagtaatgggcacctcagggct
gttcgatctgccgactgtggggtcagttacgtaagccatgggtaccgag|aatcggtaaggcagtgattgaca
gtaaactcgaggcacaaaccgtagtggcattcgacaactgcggatccgattcttttcccagccagctgtcag
aggttgacttccttgtttgctgccaatcacgtgaaggaagagcgtatagcttttttgccttgaccgctatg
ttttggtaccgtatgaagggcccttccaacagaccaagggtagagcaaatcgtcctgtgctaaacgccattgta
atgtttcctcgtagctggaccctttgggtcgcagttacgagtactatctaaagcattactttgaactctcatcgc
cggtgcactgacagtcggtacgcgtccgctatgcggactttgcacctctgagtctaagccatacaaaatacaca
tcagcgcgcag|aattctacaccatatg|aattcgctgagcatctaaagctccgttttcgcctaaccctagaga
ggcacgcaggttcacatgataattgcctgcttgagaaactcgagctagcattttgacagagcatcaagcttaa
cgaattgat
```

indexes of cleavages =

```
fragment 1 starts at 1 and ends at 123.
it's size is 123
fragment 2 starts at 124 and ends at 528.
it's size is 405
fragment 3 starts at 529 and ends at 544.
it's size is 16
fragment 4 starts at 545 and ends at 672.
it's size is 128
```

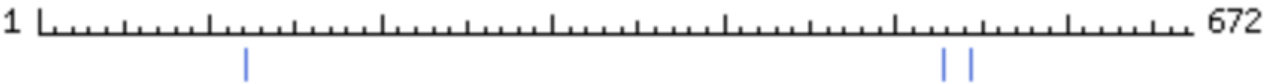
On using online mapper, we get the following cut sites on the W strands

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Fragment list

unnamed sequence digested with EcoRI

[[Sites with](#)



#	Location	Size [bp]
1	124-528	405
2	545-672	128
3	1-123	123
4	529-544	16

Dna sequence 4

```
aaccccaaagtcgccagatataccgcgatatccttcccatcccctgcctatcttgaccacttgactgacgtgc
ccaagtccatacgccagtacggaacacaagggggcatctcaggctgcaaagcctgcaccgtgagcttcgtagct
acgttatgtctaattgaactccagctcatgacctctaacggagttcgtaggacgtggatgaggcgtgaggggcc
ctcgctggaggggttttttggggtacagccaacggccttggtgctggttcgggggtacgcgaactaccctttcgt
agctactttgttctctataggtttcataaggggttcctggcatcttgaatacgtgtttggagtgacctgcggtcag
gcgccgtatgatagtcctctcgctactcggttctgagtcaccgctatcagtatcactcctcaataatattttacgct
ccgttaccaggcatagtcggaactagaggccgcgttaagcgggacctcctaccgcg
```

code's results =

Cleavages -

```
aaccccaaagtcgccagatataccgcgatatccttcccatcccctgcctatcttgaccacttgactgacgtgc
ccaagtccatacgccagtacggaacacaagggggcatctcaggctgcaaagcctgcaccgtgagcttcgtagct
acgttatgtctaattgaactccagctcatgacctctaacggagttcgtaggacgtggatgaggcgtgaggggcc
ctcgctggaggggttttttggggtacagccaacggccttggtgctggttcgggggtacgcgaactaccctttcgt
agctactttgttctctataggtttcataaggggttcctggcatcttgaatacgtgtttggagtgacctgcggtcag
gcgccgtatgatagtcctctcgctactcggttctgagtcaccgctatcagtatcactcctcaataatattttacgct
ccgttaccaggcatagtcggaactagaggccgcgttaagcgggacctcctaccgcg
```

indexes of cleavages =

```
fragment 1 starts at 1 and ends at 500.  
it's size is 500
```

On using online mapper, we get the following cut sites on the W strands

Fragment list

unnamed sequence digested with EcoRI

[Sites v



#	Location	Size [bp]
1	1-500	500