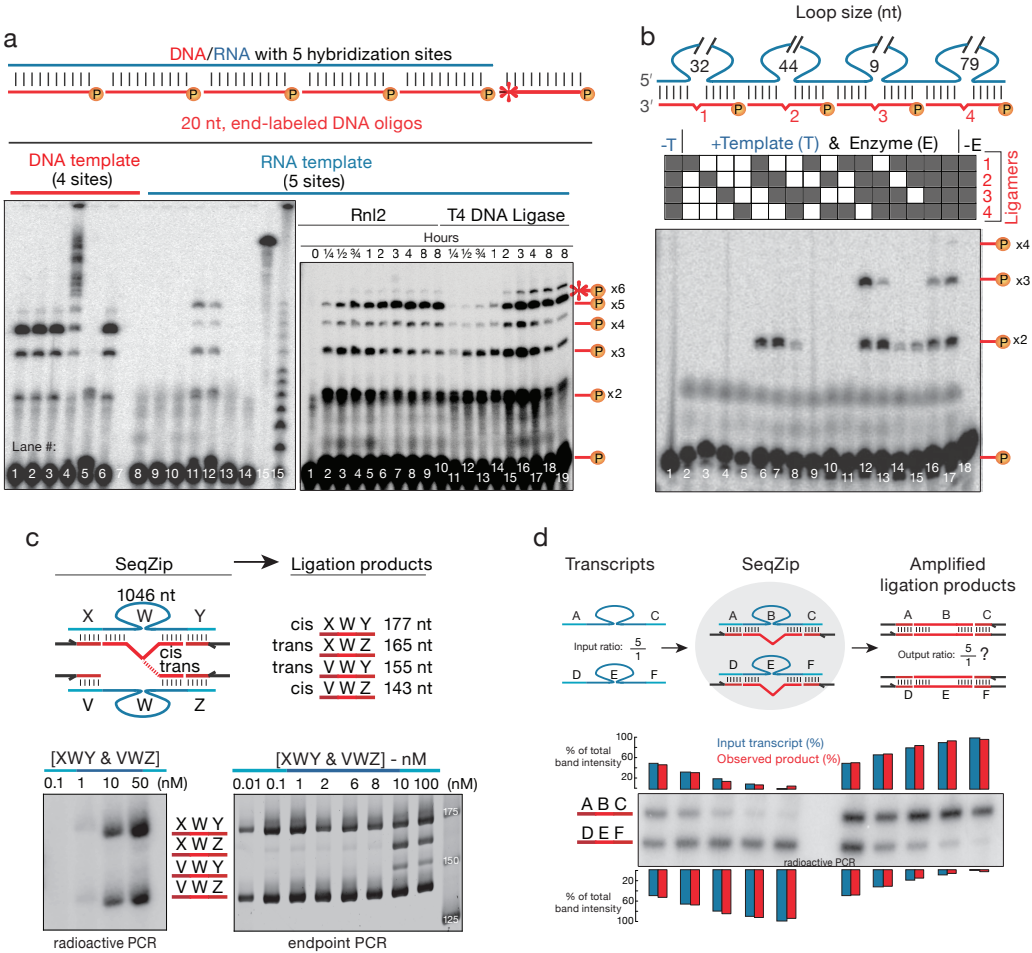
a
DNA/RNA with 5 hybridization sites
20 nt, end-labeled DNA oligos
DNA template
(4 sites)
RNA template
(5 sites)
Lane #:
Rnl2
T4 DNA Ligase
Hours
0 ¼ ½ ¾ 1 2 3 4 8 8 ¼ ½ ¾ 1 2 3 4 8 8
x6
x5
x4
x3
x2
b
Loop size (nt)
32
44
9
79
5′
3′
-T
+Template (T) & Enzyme (E)
-E
Ligamers
x4
x3
x2
c
SeqZip
Ligation products
1046 nt
X
W
Y
cis
trans
V
W
Z
cis X W Y 177 nt
trans X W Z 165 nt
trans V W Y 155 nt
cis V W Z 143 nt
[XWY & VWZ]
0.1 1 10 50 (nM)
X W Y
X W Z
V W Y
V W Z
radioactive PCR
[XWY & VWZ] - nM
0.01 0.1 1 2 6 8 10 100 (nM)
175
150
125
endpoint PCR
d
Transcripts
SeqZip
Amplified
ligation products
A
B
C
D
E
F
Input ratio: 5/1
Output ratio: 5/1 ?
% of total
band intensity
100
60
20
Input transcript (%)
Observed product (%)
A B C
D E F
radioactive PCR