FIG. 1

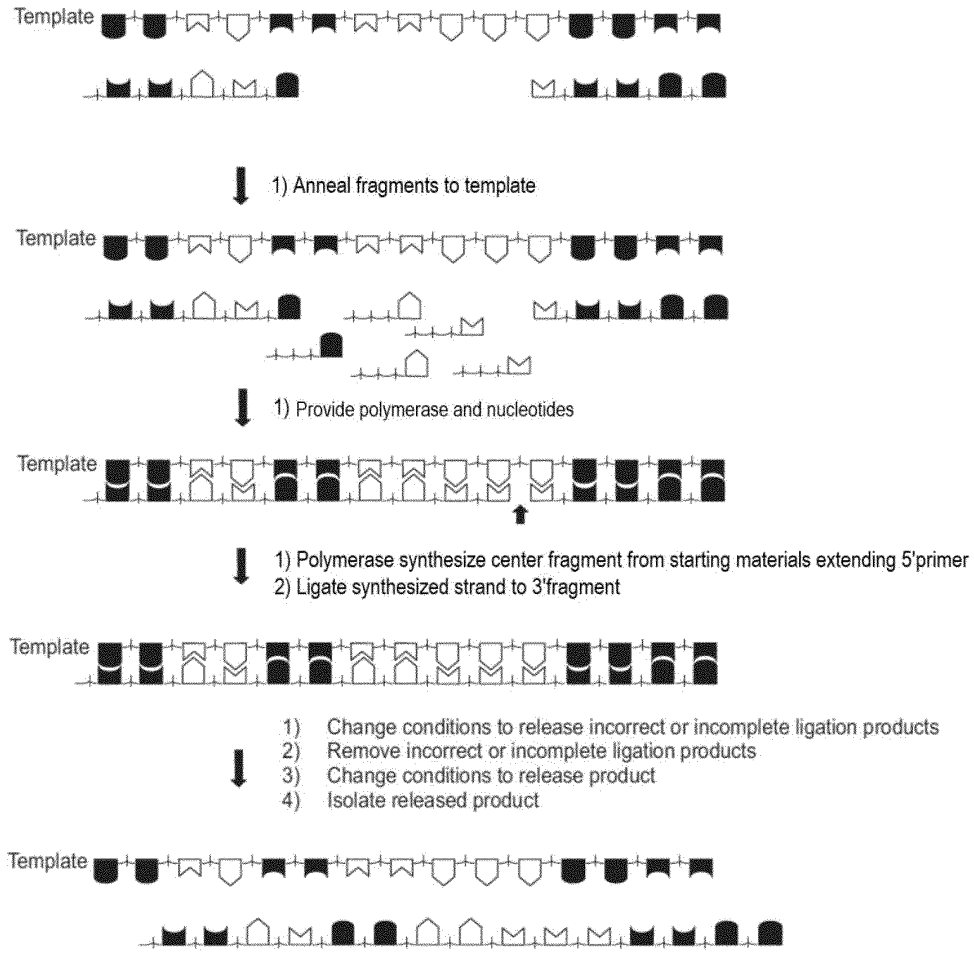

Template
1) Anneal fragments to template
Template
1) Provide polymerase and nucleotides
Template
1) Polymerase synthesize center fragment from starting materials extending 5'primer
2) Ligate synthesized strand to 3'fragment
Template
1) Change conditions to release incorrect or incomplete ligation products
2) Remove incorrect or incomplete ligation products
3) Change conditions to release product
4) Isolate released product
Template

FIG. 2

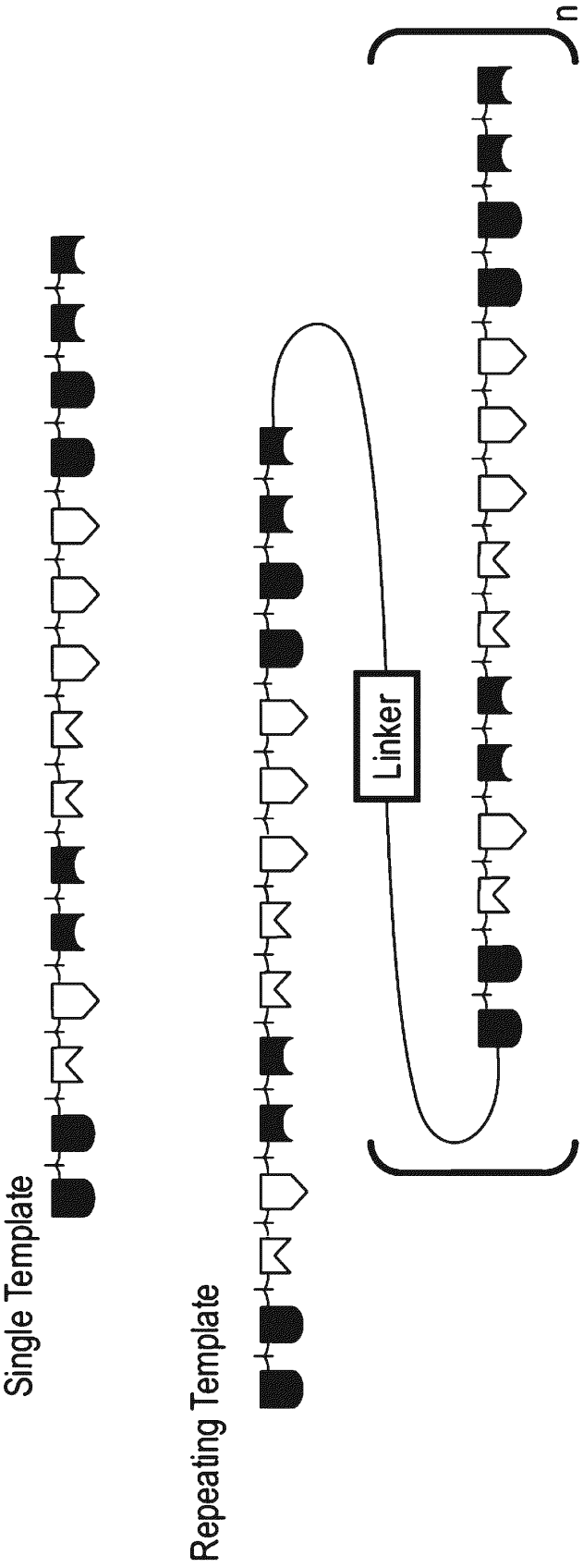


FIG. 3a

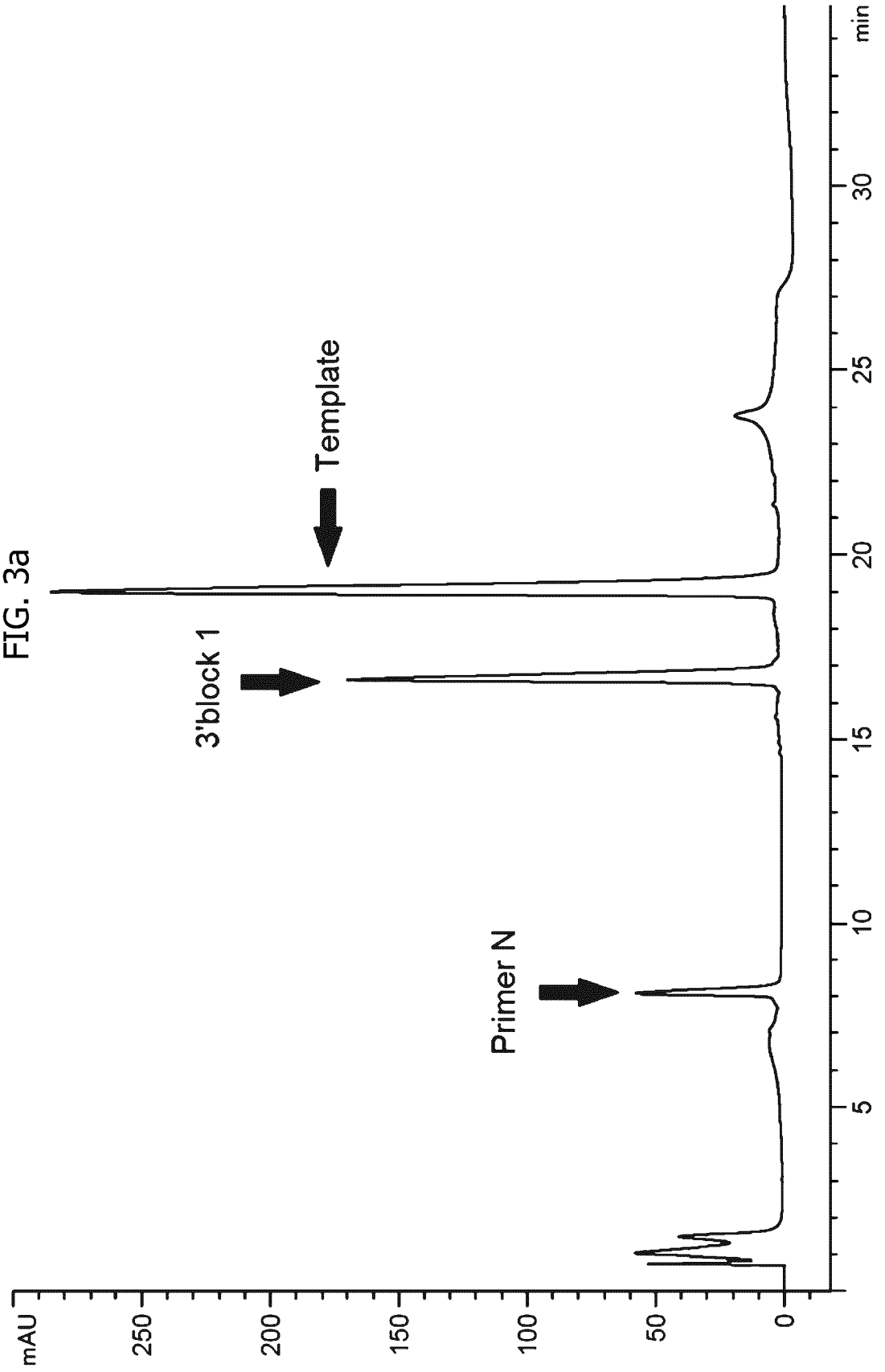

mAU
250
200
150
100
50
0
5
10
15
20
25
30
min
Template
3'block 1
Primer N

FIG. 3b

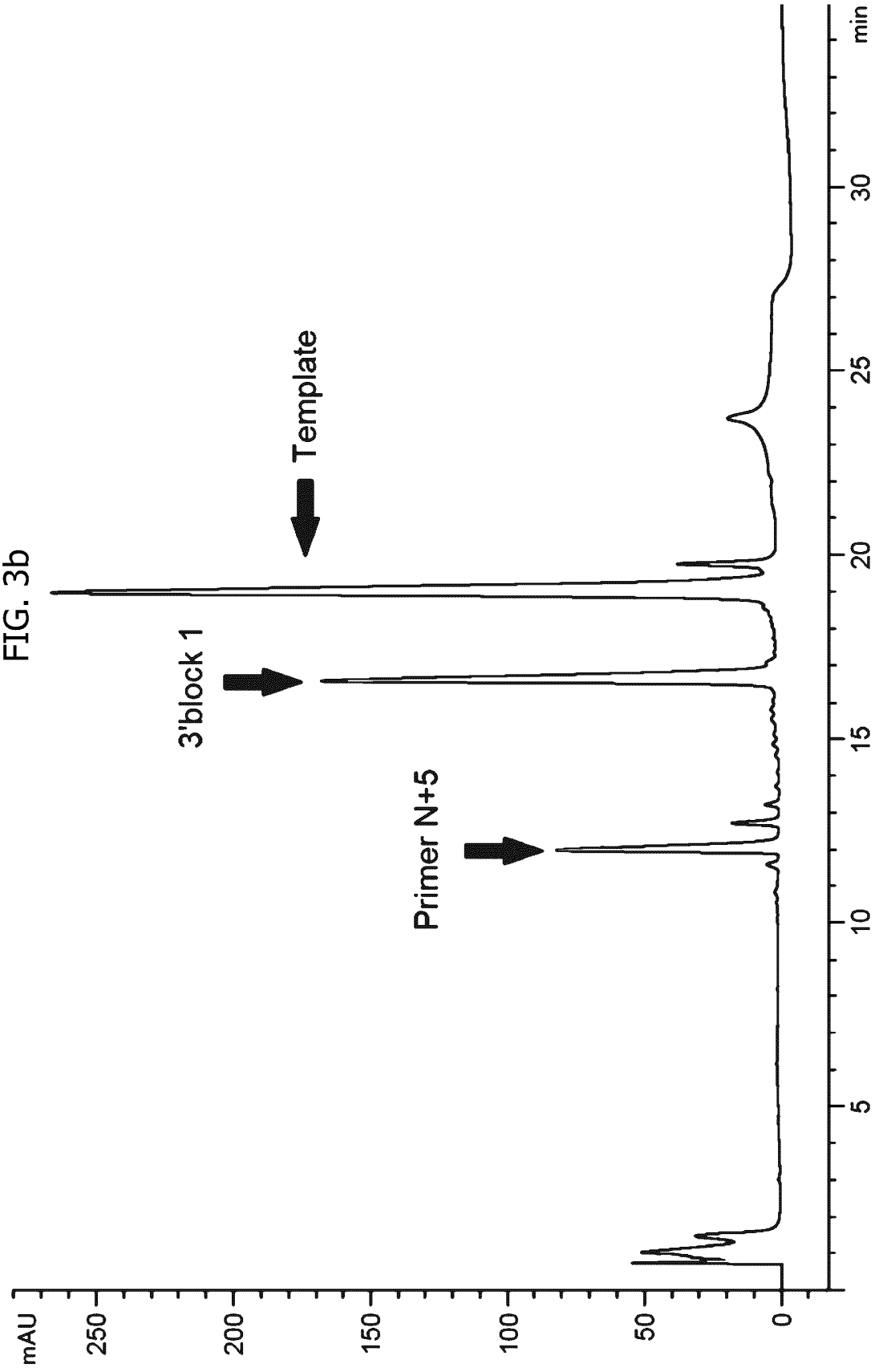
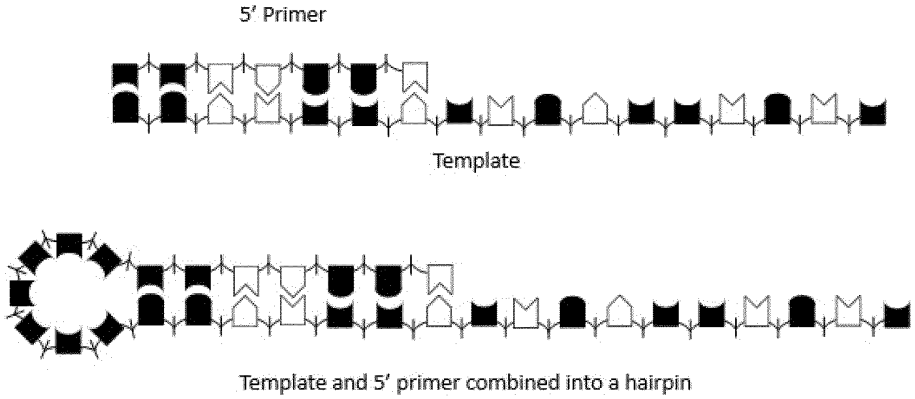

Template
3'block 1
Primer N+5
mAU
250
200
150
100
50
0
5
10
15
20
25
30
min

FIG. 4


5' Primer
Template
Template and 5' primer combined into a hairpin