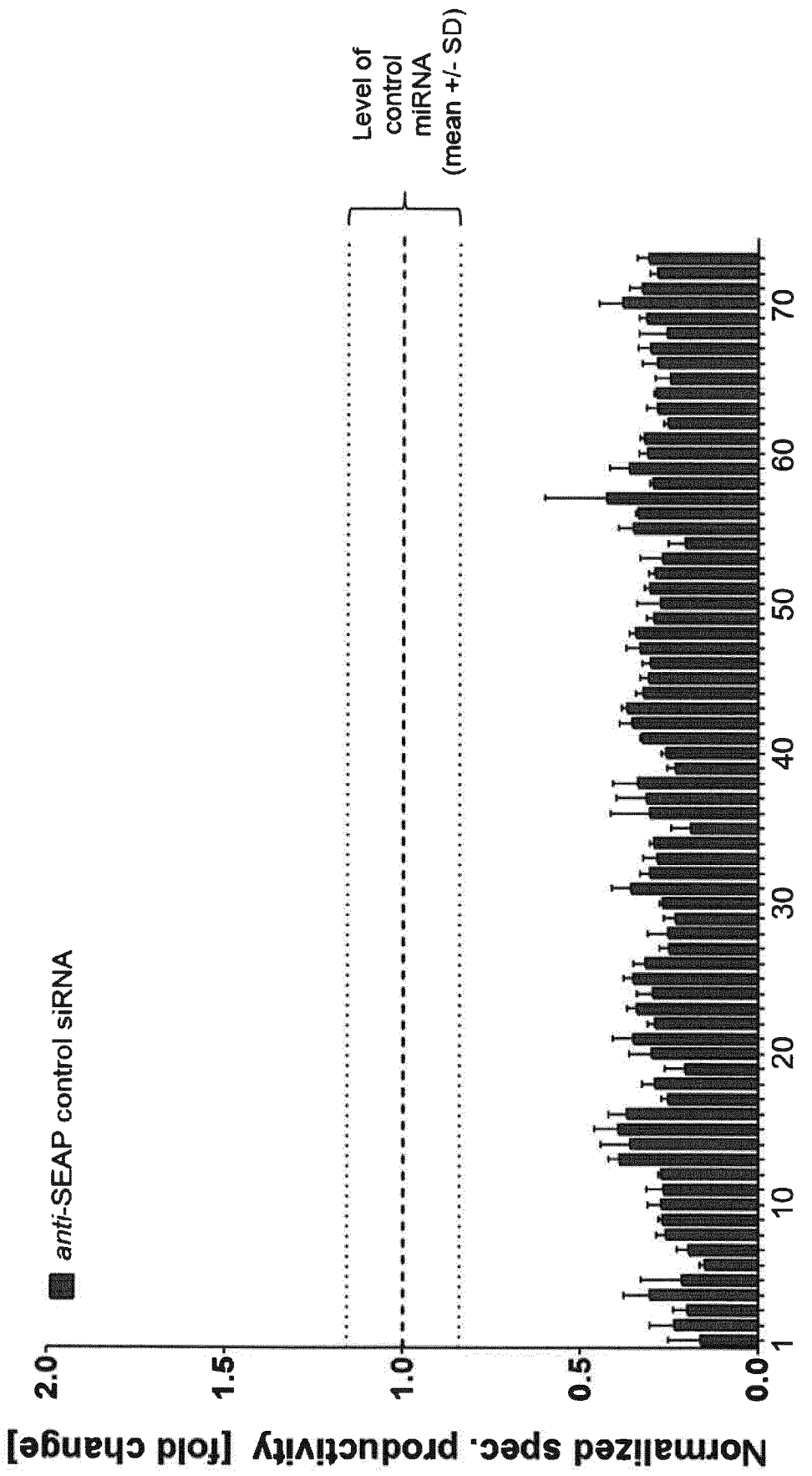

Normalized spec. productivity [fold change]
2.0
1.5
1.0
0.5
0.0
anti-SEAP control siRNA
Level of control miRNA (mean +/- SD)
1
10
20
30
40
50
60
70
Screen plate number

Figure 1

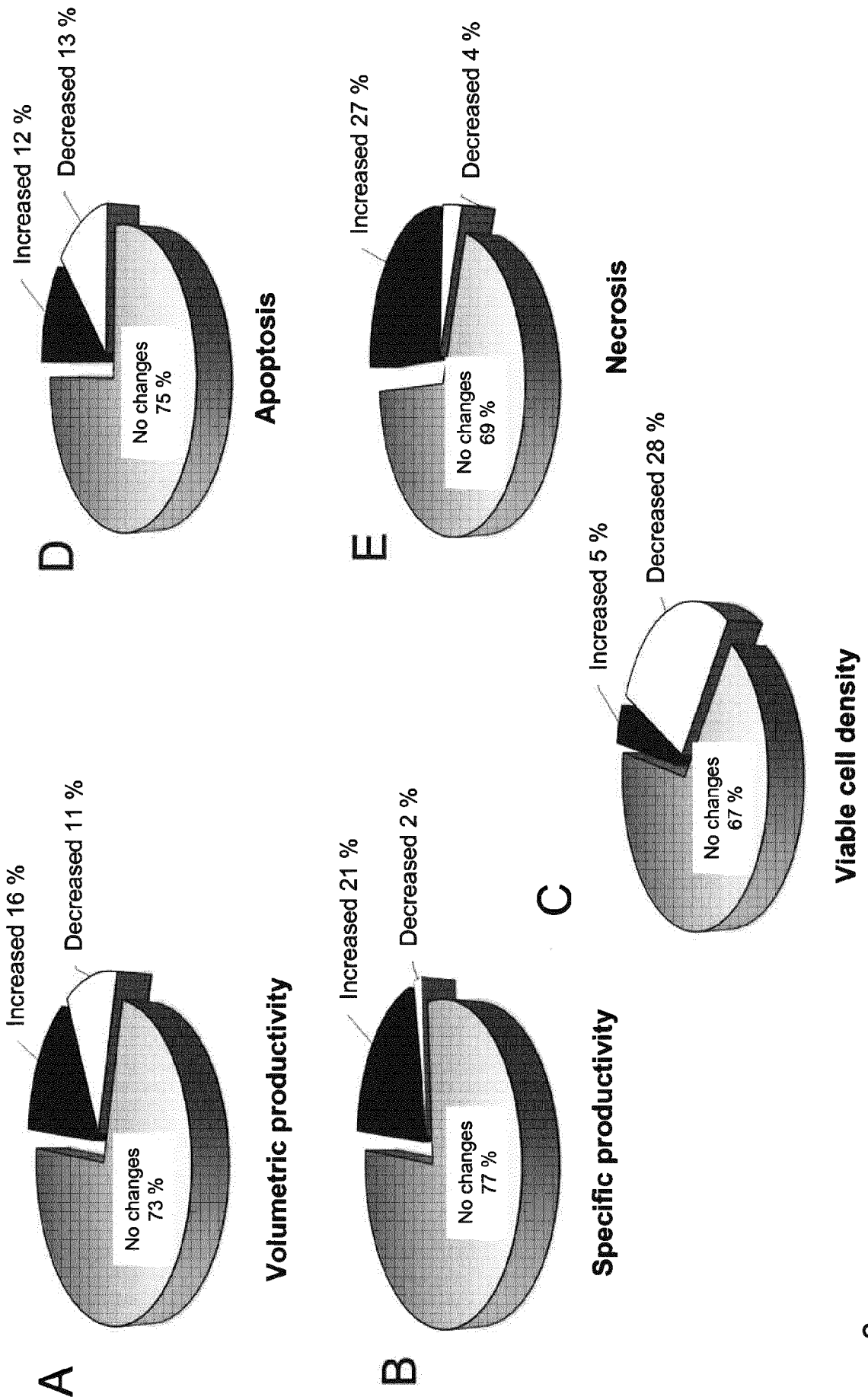
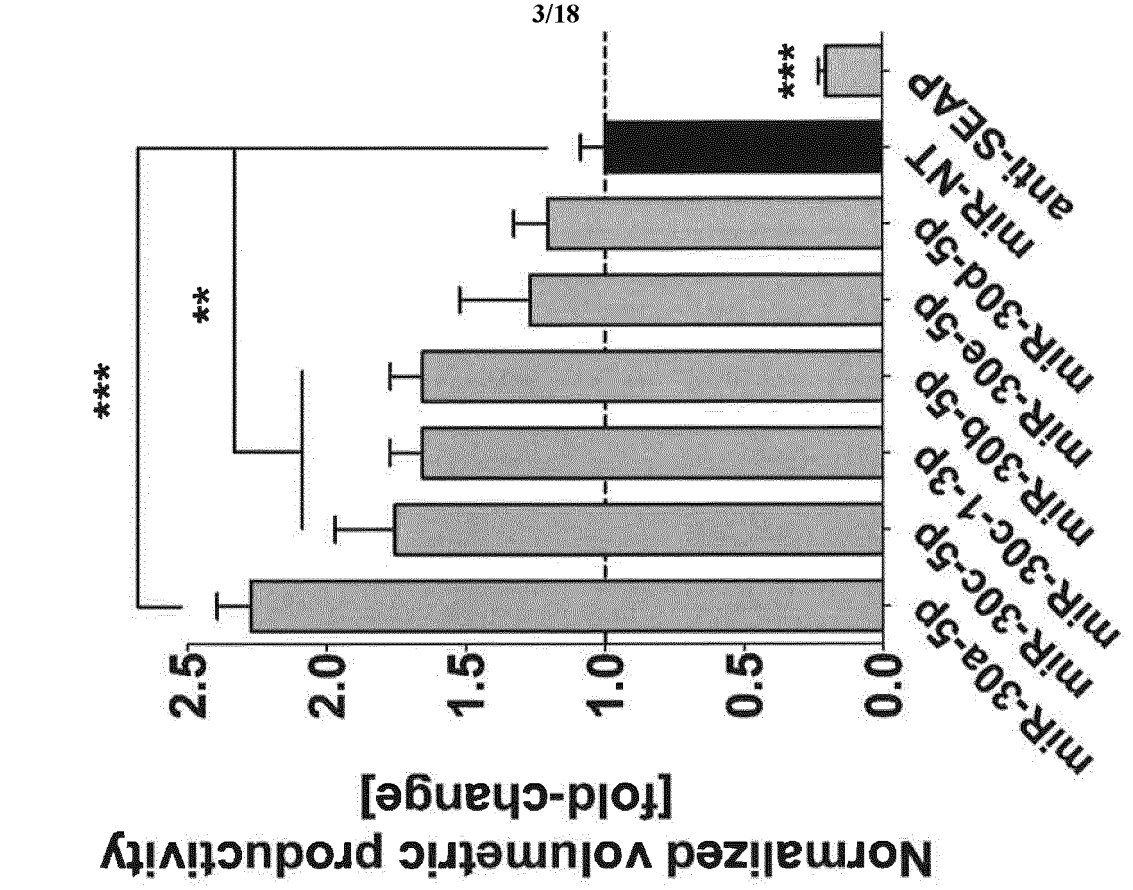

A
Increased 16 %
Decreased 11 %
No changes
73 %
Volumetric productivity
B
Increased 21 %
Decreased 2 %
No changes
77 %
Specific productivity
C
Increased 5 %
Decreased 28 %
No changes
67 %
Viable cell density
D
Increased 12 %
Decreased 13 %
No changes
75 %
Apoptosis
E
Increased 27 %
Decreased 4 %
No changes
69 %
Necrosis

Figure 2


B
Normalized volumetric productivity
[fold-change]
2.5
2.0
1.5
1.0
0.5
0.0
***
**
***
miR-30a-5p
miR-30c-5p
miR-30c-1-3p
miR-30b-5p
miR-30e-5p
miR-30d-5p
miR-NT
anti-SEAP

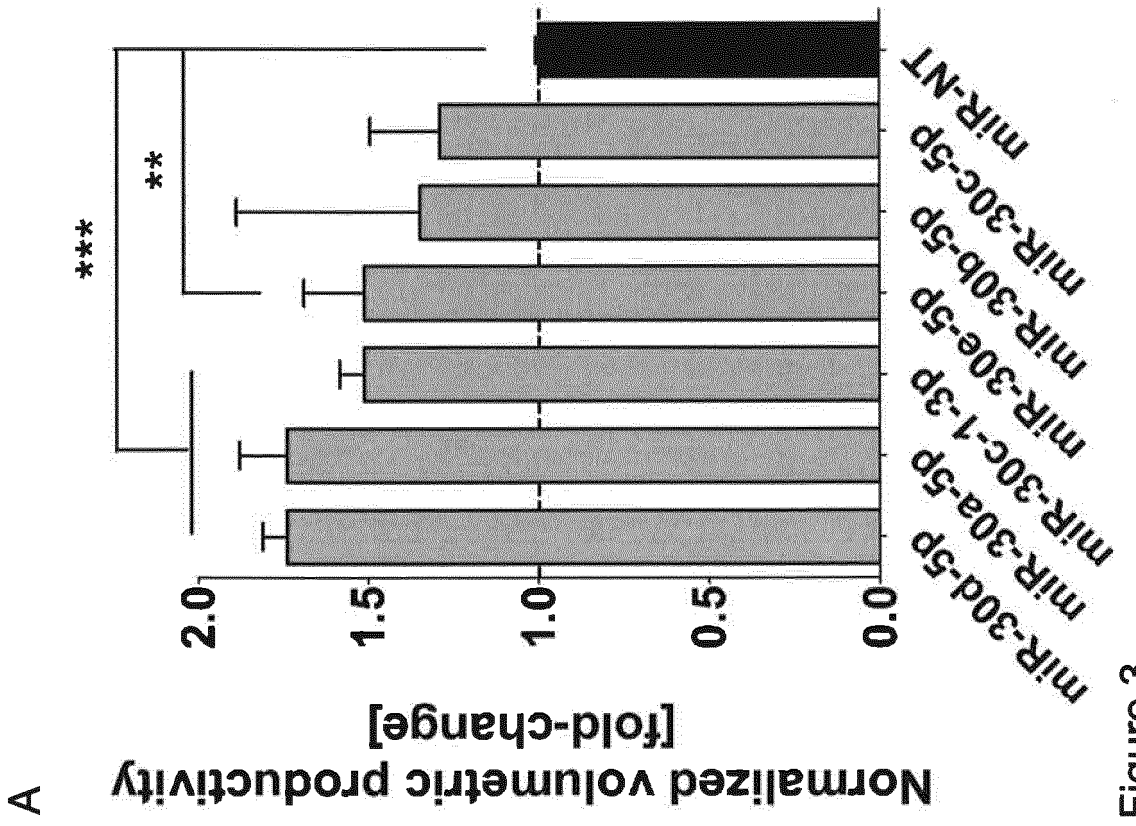
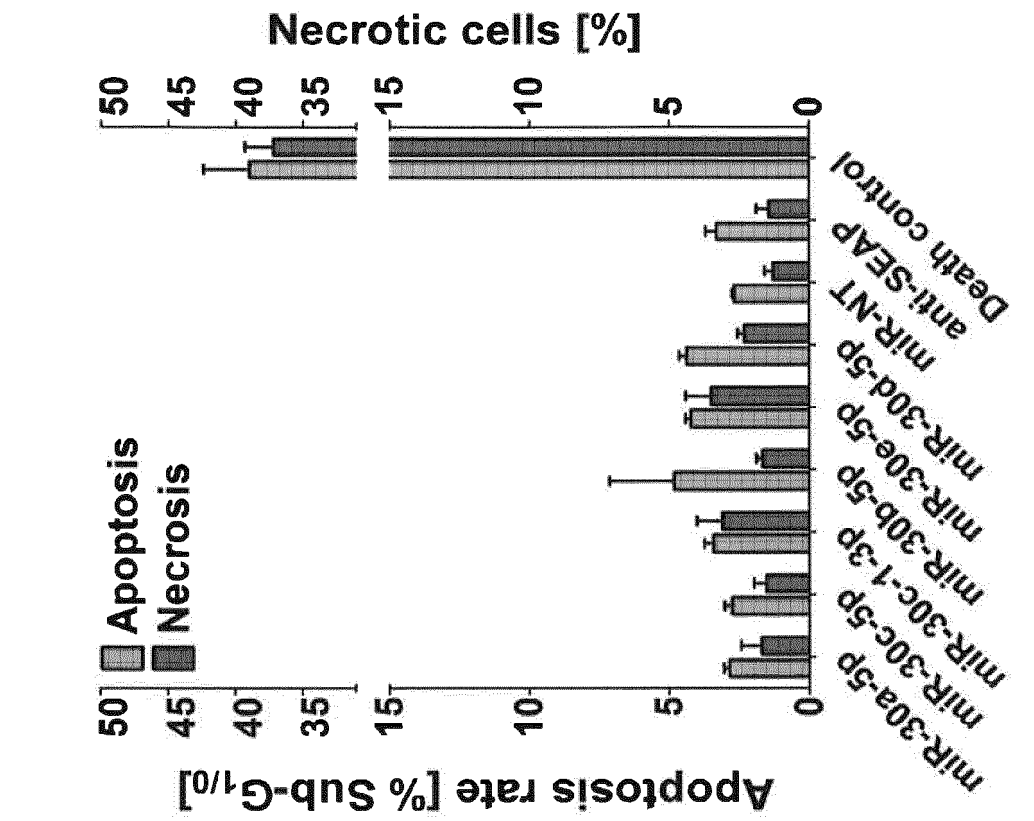

A
Normalized volumetric productivity
[fold-change]
2.0
1.5
1.0
0.5
0.0
***
**
miR-30d-5p
miR-30a-5p
miR-30c-1-3p
miR-30e-5p
miR-30b-5p
miR-30c-5p
miR-NT

Figure 3



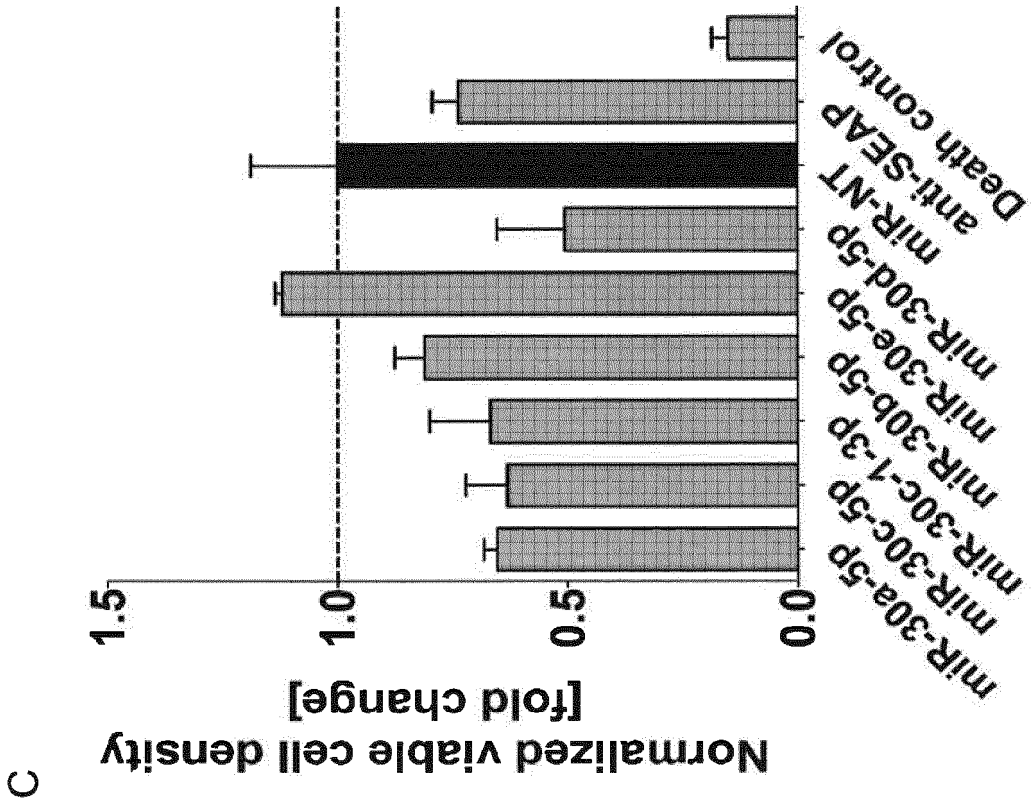
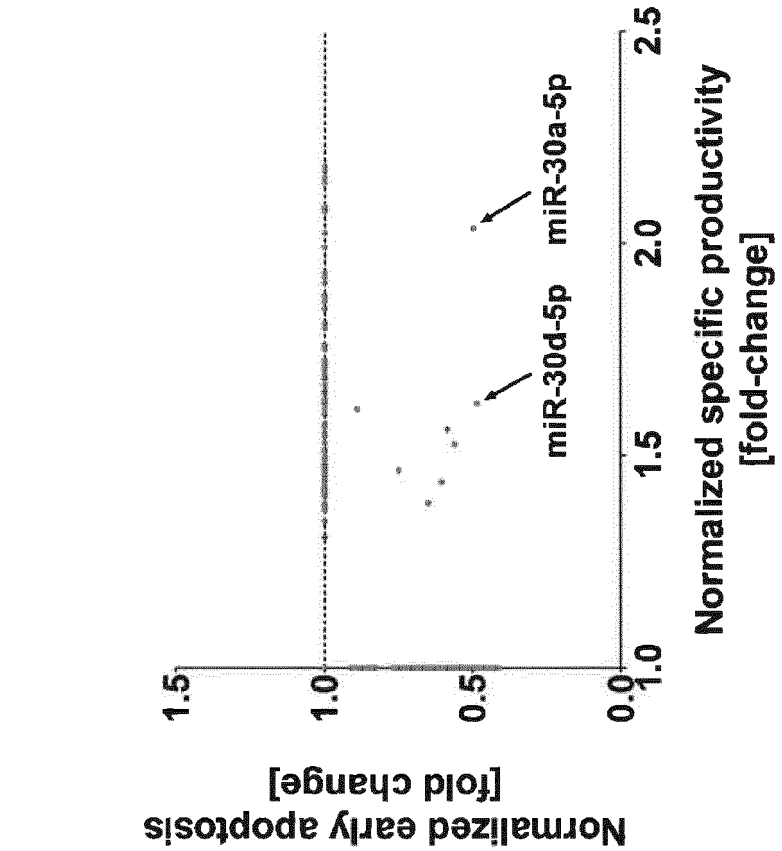


Figure 3 (continued)



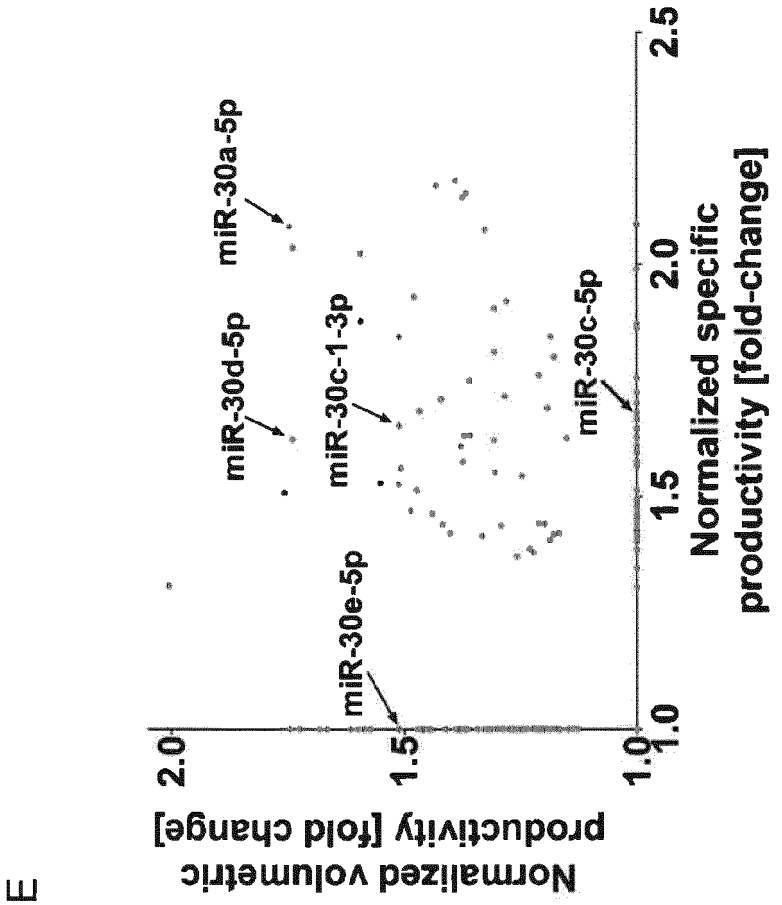


Figure 3 (continued)

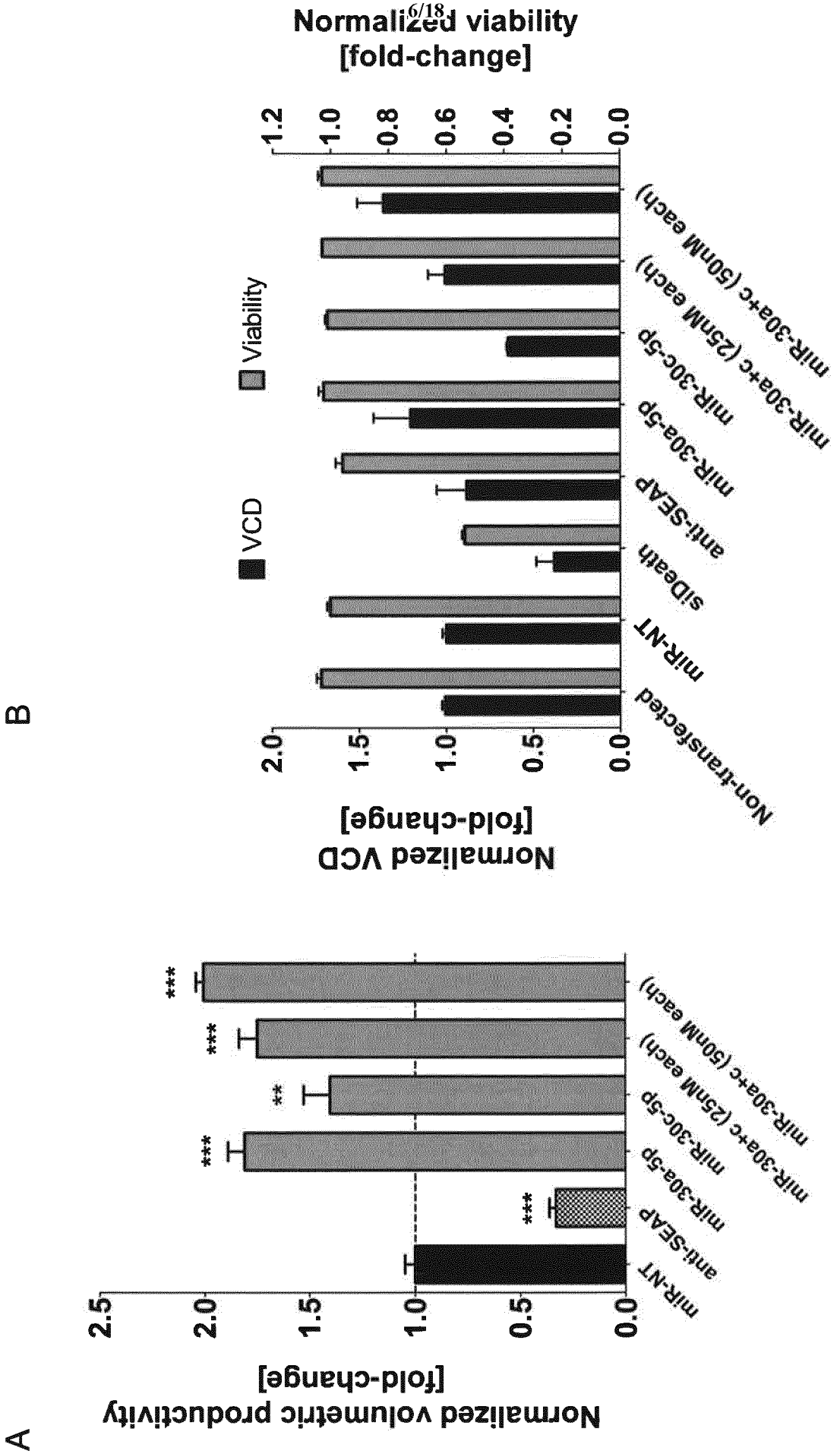

A
Normalized volumetric productivity
[fold-change]
2.5
2.0
1.5
1.0
0.5
0.0
***
***
**
***
***
miR-NT
anti-SEAP
miR-30a-5p
miR-30c-5p
miR-30a+c (25nM each)
miR-30a+c (50nM each)
B
Normalized viability
[fold-change]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Viability
Normalized VCD
[fold-change]
2.0
1.5
1.0
0.5
0.0
VCD
Non-transfected
miR-NT
siDeath
anti-SEAP
miR-30a-5p
miR-30c-5p
miR-30a+c (25nM each)
miR-30a+c (50nM each)

Figure 4

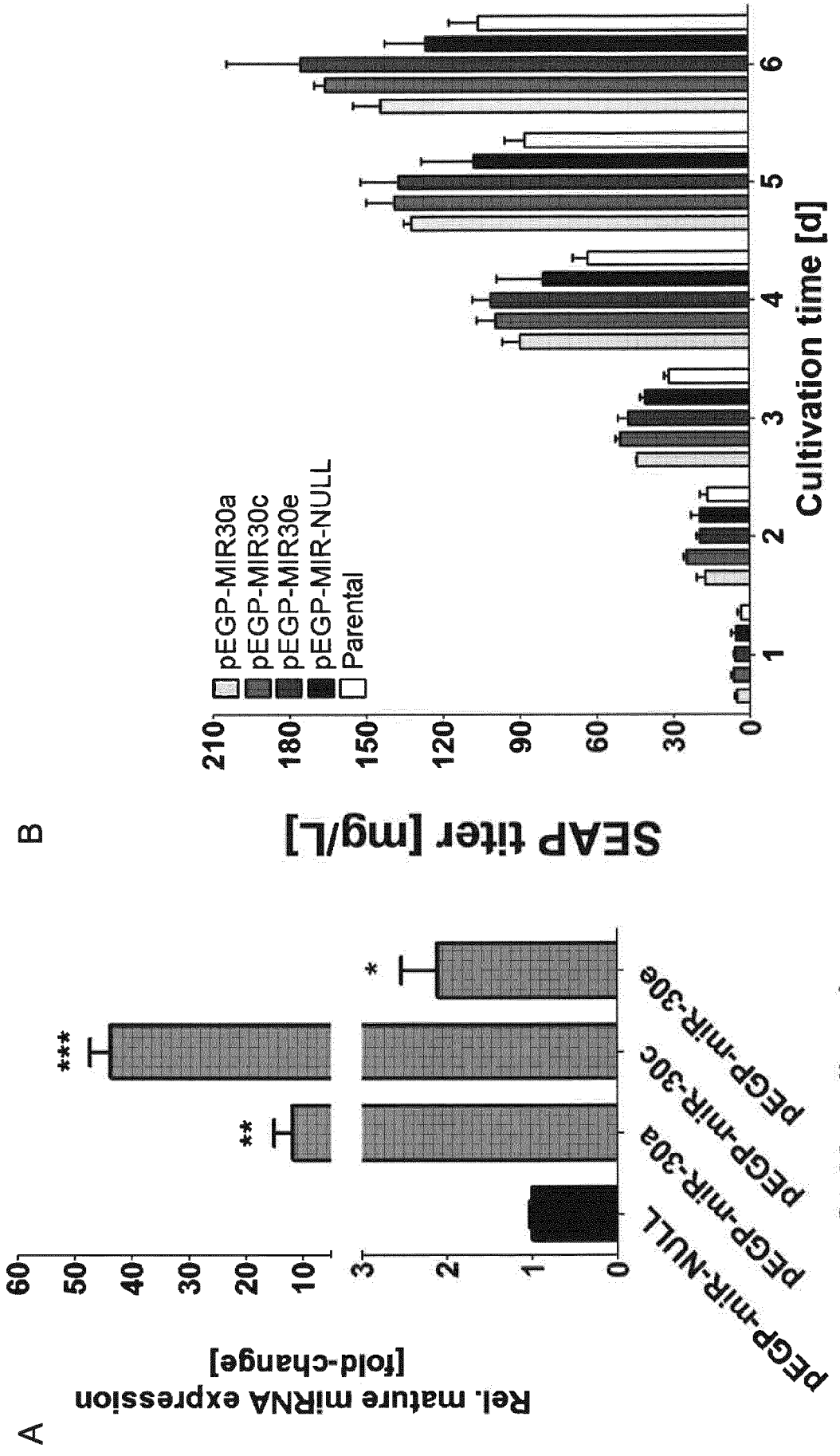
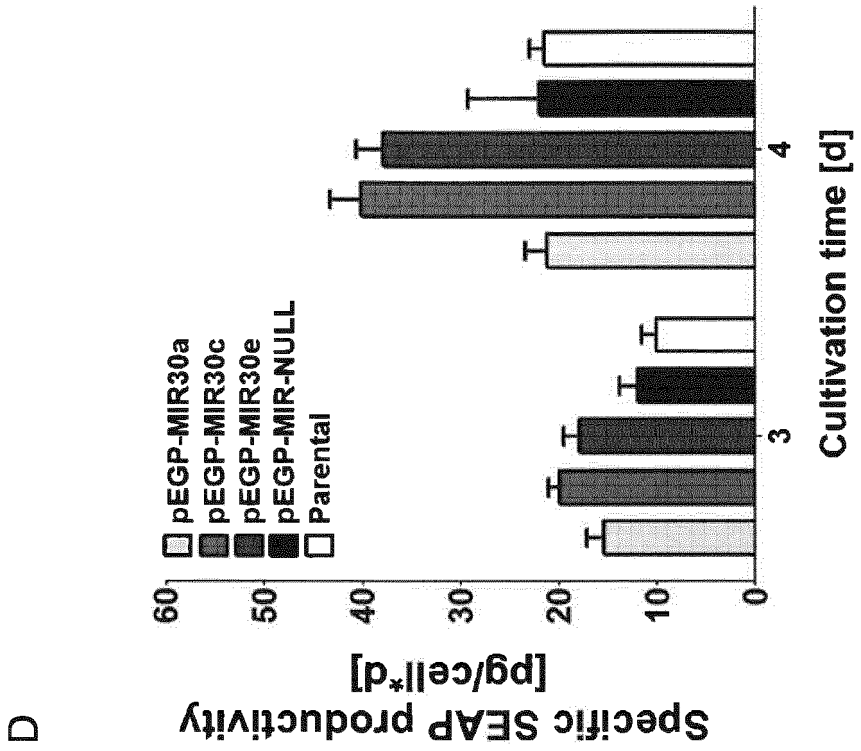

A
Rel. mature miRNA expression
[fold-change]
60
50
40
30
20
10
3
2
1
0
***
**
*
pEGP-miR-NULL
pEGP-miR-30a
pEGP-miR-30c
pEGP-miR-30e
Stable cell pool
B
SEAP titer [mg/L]
210
180
150
120
90
60
30
0
pEGP-MIR30a
pEGP-MIR30c
pEGP-MIR30e
pEGP-MIR-NULL
Parental
1
2
3
4
5
6
Cultivation time [d]

Figure 5



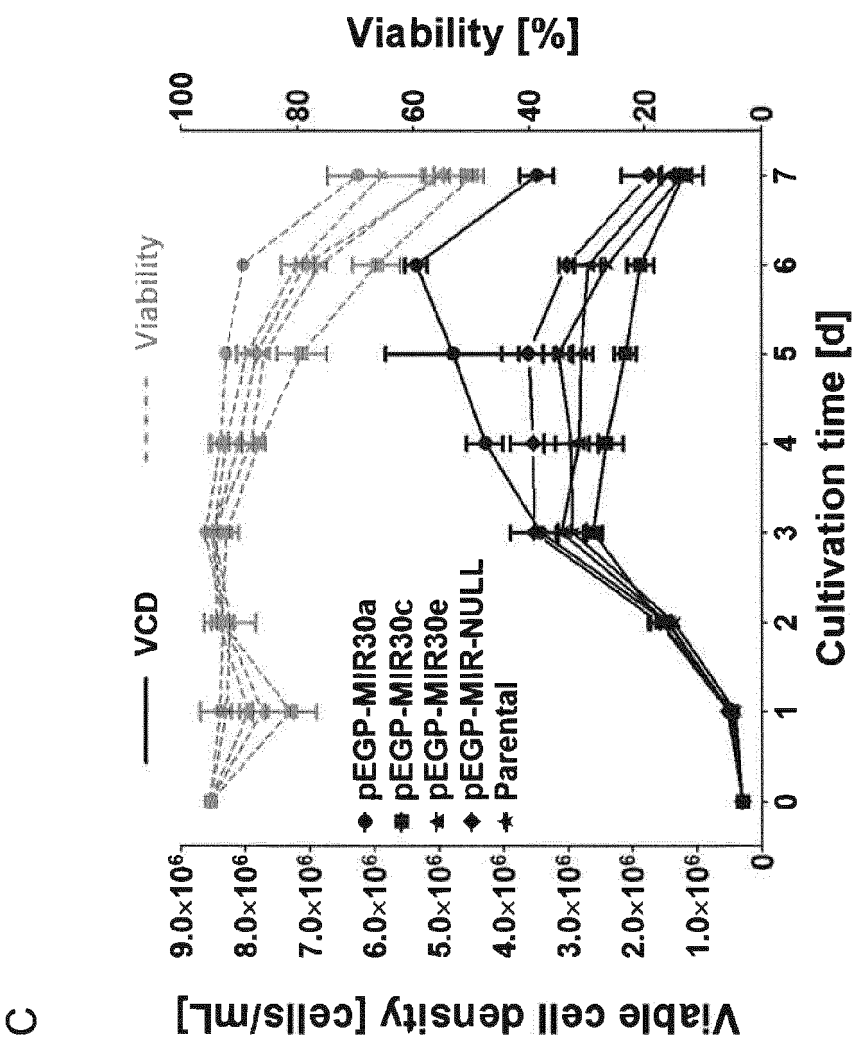
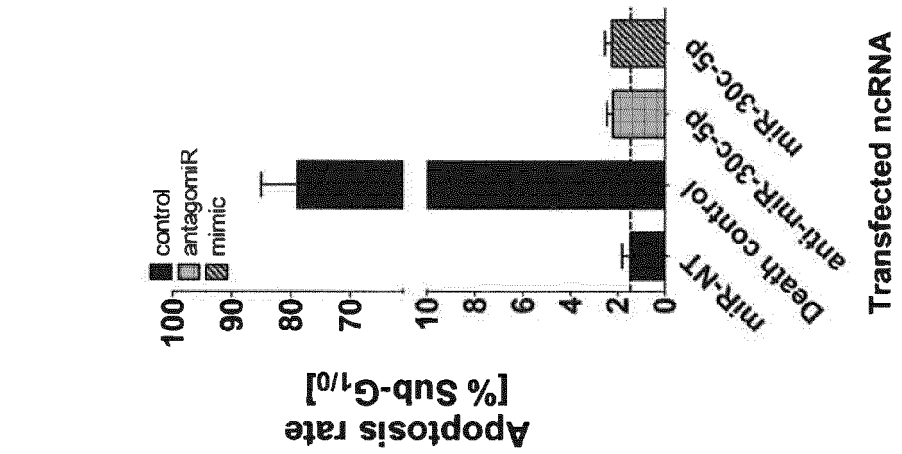


Figure 5 (continued)


B
Apoptosis rate
[% Sub-G1/0]
control
antagomiR
mimic
100
90
80
70
10
8
6
4
2
0
miR-NT
Death control
anti-miR-30c-5p
miR-30c-5p
Transfected ncRNA

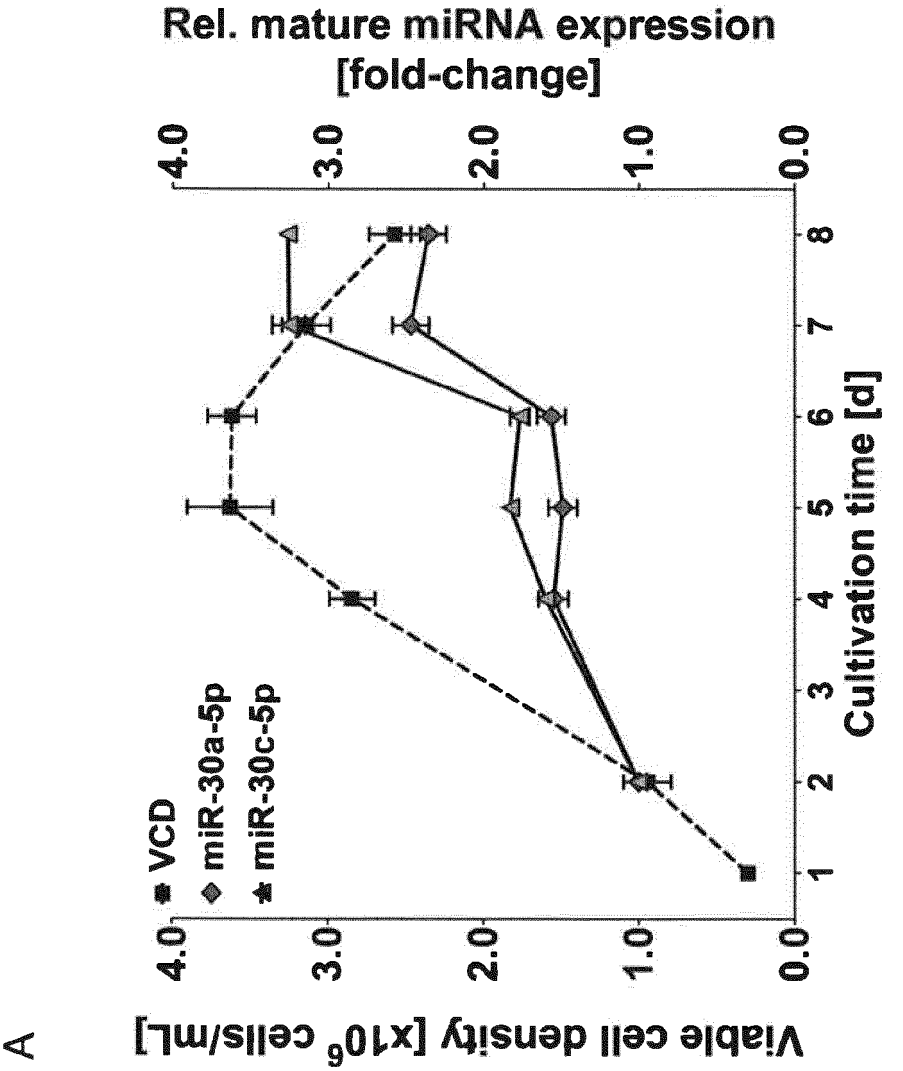

A
Rel. mature miRNA expression
[fold-change]
4.0
3.0
2.0
1.0
0.0
VCD
miR-30a-5p
miR-30c-5p
Viable cell density [x10^6 cells/mL]
Cultivation time [d]
1
2
3
4
5
6
7
8

Figure 6

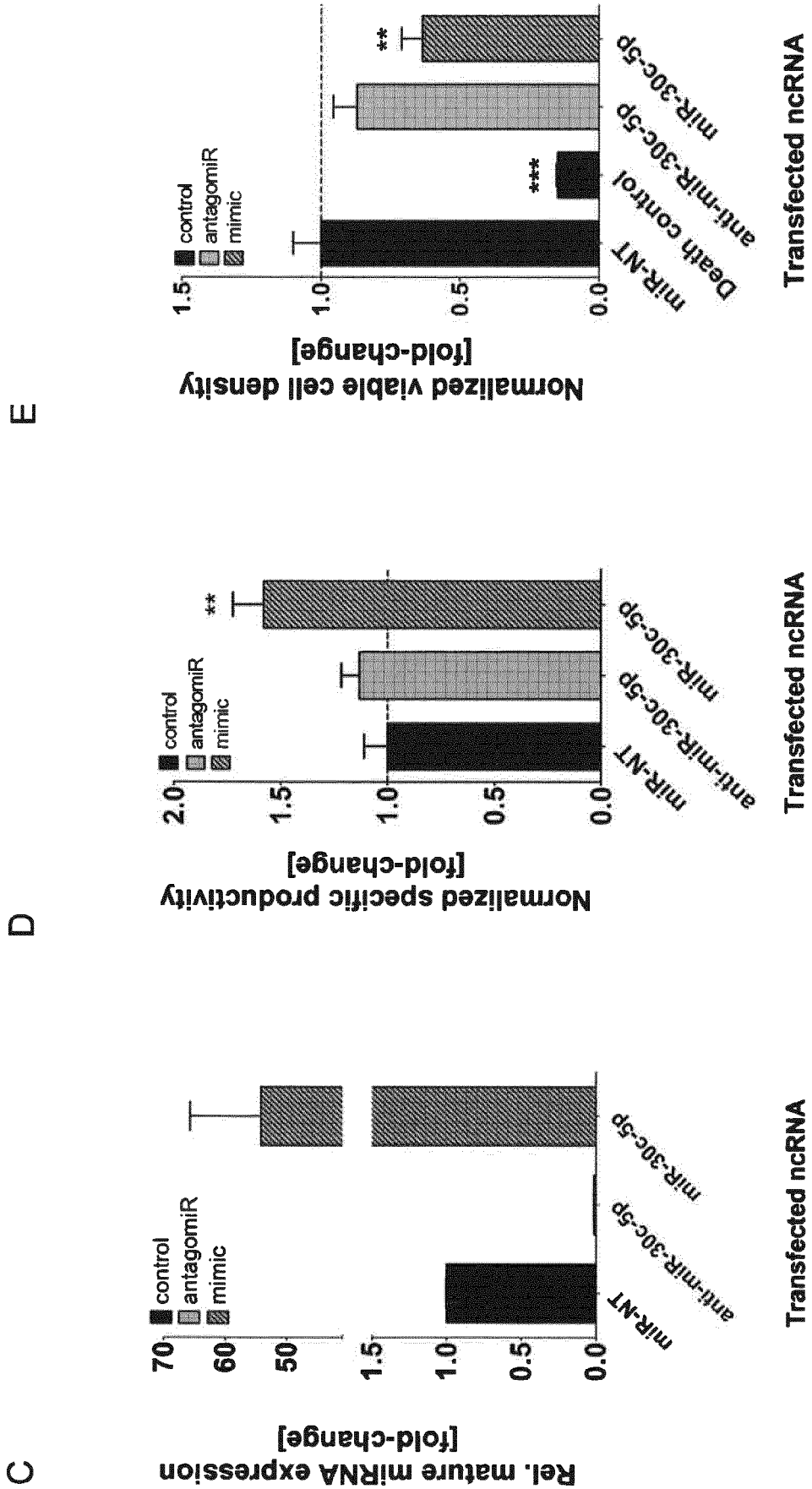


Figure 6 (continued)

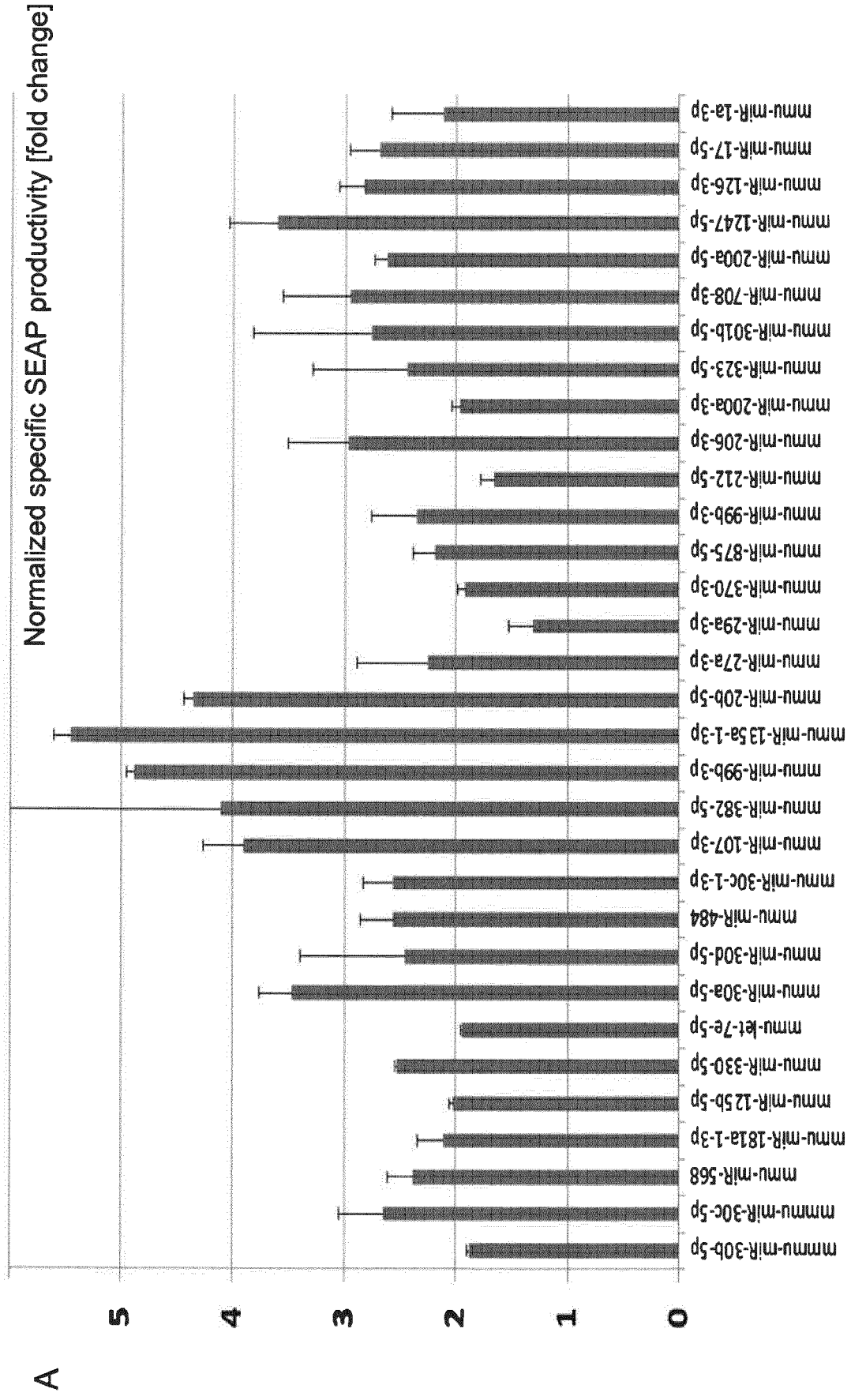

A
Normalized specific SEAP productivity [fold change]
0
1
2
3
4
5
mmu-miR-30b-5p
mmu-miR-30c-5p
mmu-miR-568
mmu-miR-181a-1-3p
mmu-miR-125b-5p
mmu-miR-330-5p
mmu-let-7e-5p
mmu-miR-30a-5p
mmu-miR-30d-5p
mmu-miR-484
mmu-miR-30c-1-3p
mmu-miR-107-3p
mmu-miR-382-5p
mmu-miR-99b-3p
mmu-miR-135a-1-3p
mmu-miR-20b-5p
mmu-miR-27a-3p
mmu-miR-29a-3p
mmu-miR-370-3p
mmu-miR-875-5p
mmu-miR-99b-3p
mmu-miR-212-5p
mmu-miR-206-3p
mmu-miR-200a-3p
mmu-miR-323-5p
mmu-miR-301b-5p
mmu-miR-708-3p
mmu-miR-200a-5p
mmu-miR-1247-5p
mmu-miR-126-3p
mmu-miR-17-5p
mmu-miR-1a-3p

Figure 7

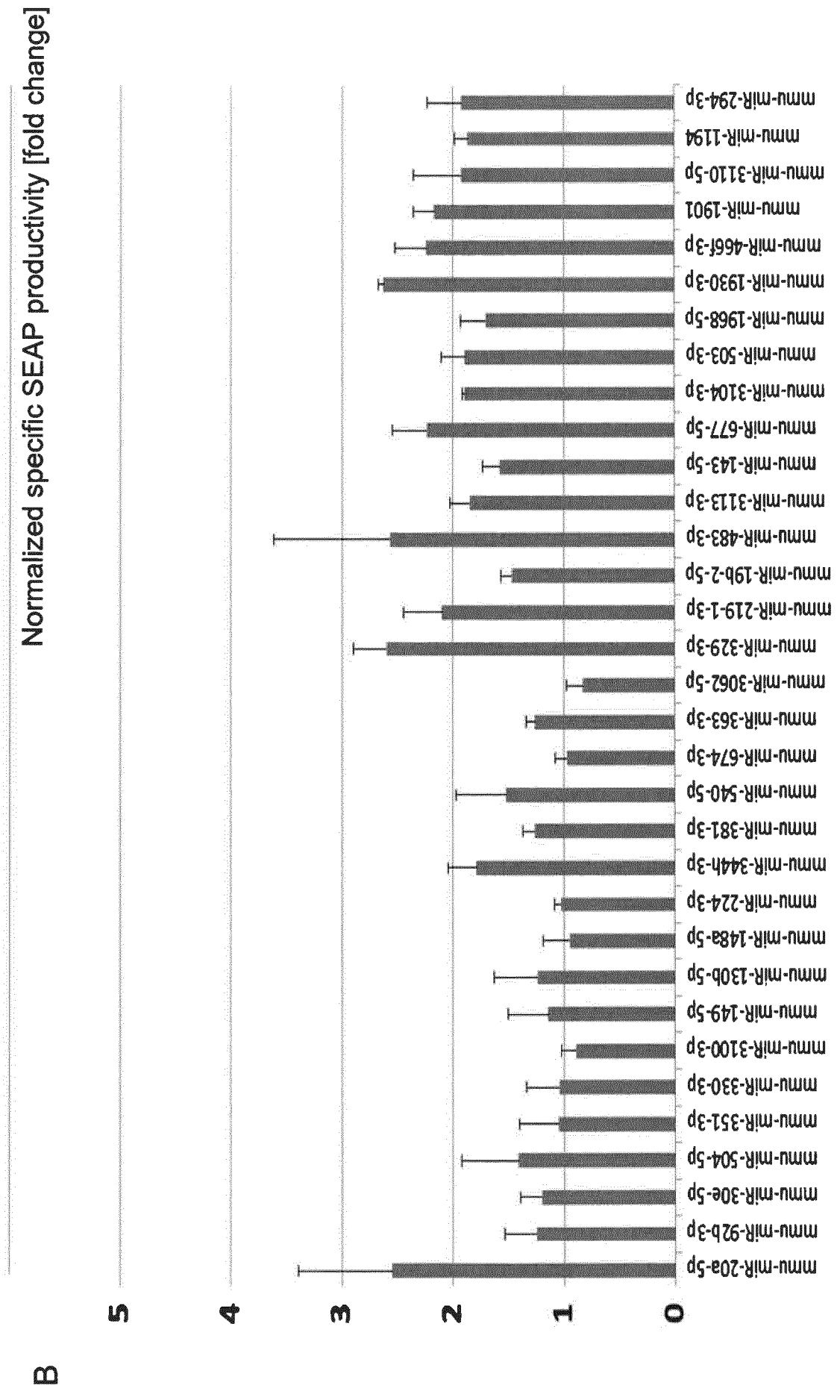


Figure 7 (continued)

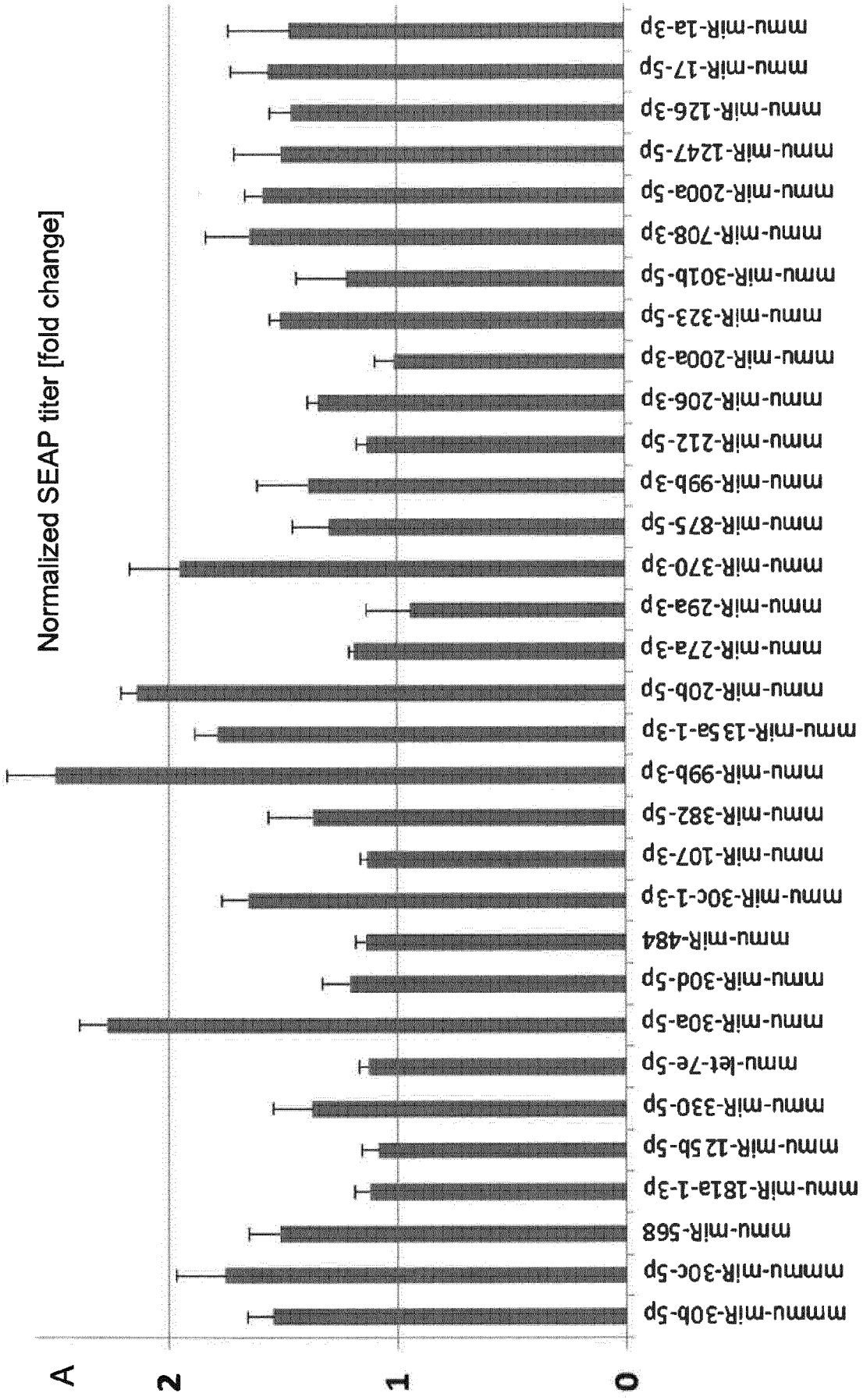

A
Normalized SEAP titer [fold change]
0
1
2
mmu-miR-30b-5p
mmu-miR-30c-5p
mmu-miR-568
mmu-miR-1814a-1-3p
mmu-miR-125b-5p
mmu-miR-330-5p
mmu-let-7e-5p
mmu-miR-30a-5p
mmu-miR-30d-5p
mmu-miR-484
mmu-miR-30c-1-3p
mmu-miR-107-3p
mmu-miR-382-5p
mmu-miR-99b-3p
mmu-miR-135a-1-3p
mmu-miR-20b-5p
mmu-miR-27a-3p
mmu-miR-29a-3p
mmu-miR-370-3p
mmu-miR-875-5p
mmu-miR-99b-3p
mmu-miR-212-5p
mmu-miR-206-3p
mmu-miR-200a-3p
mmu-miR-323-5p
mmu-miR-301b-5p
mmu-miR-708-3p
mmu-miR-200a-5p
mmu-miR-1247-5p
mmu-miR-126-3p
mmu-miR-17-5p
mmu-miR-1a-3p

Figure 8

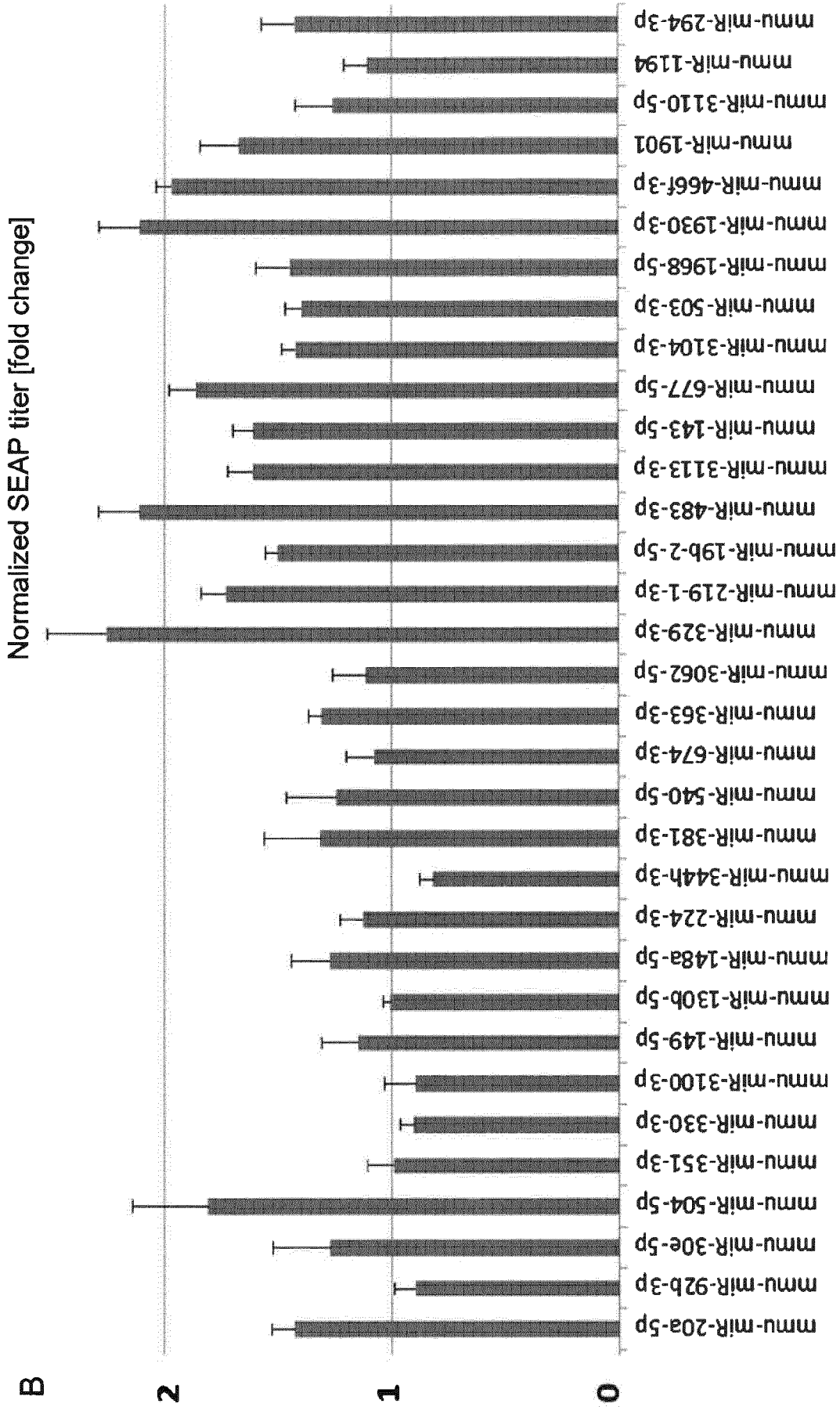


Figure 8 (continued)

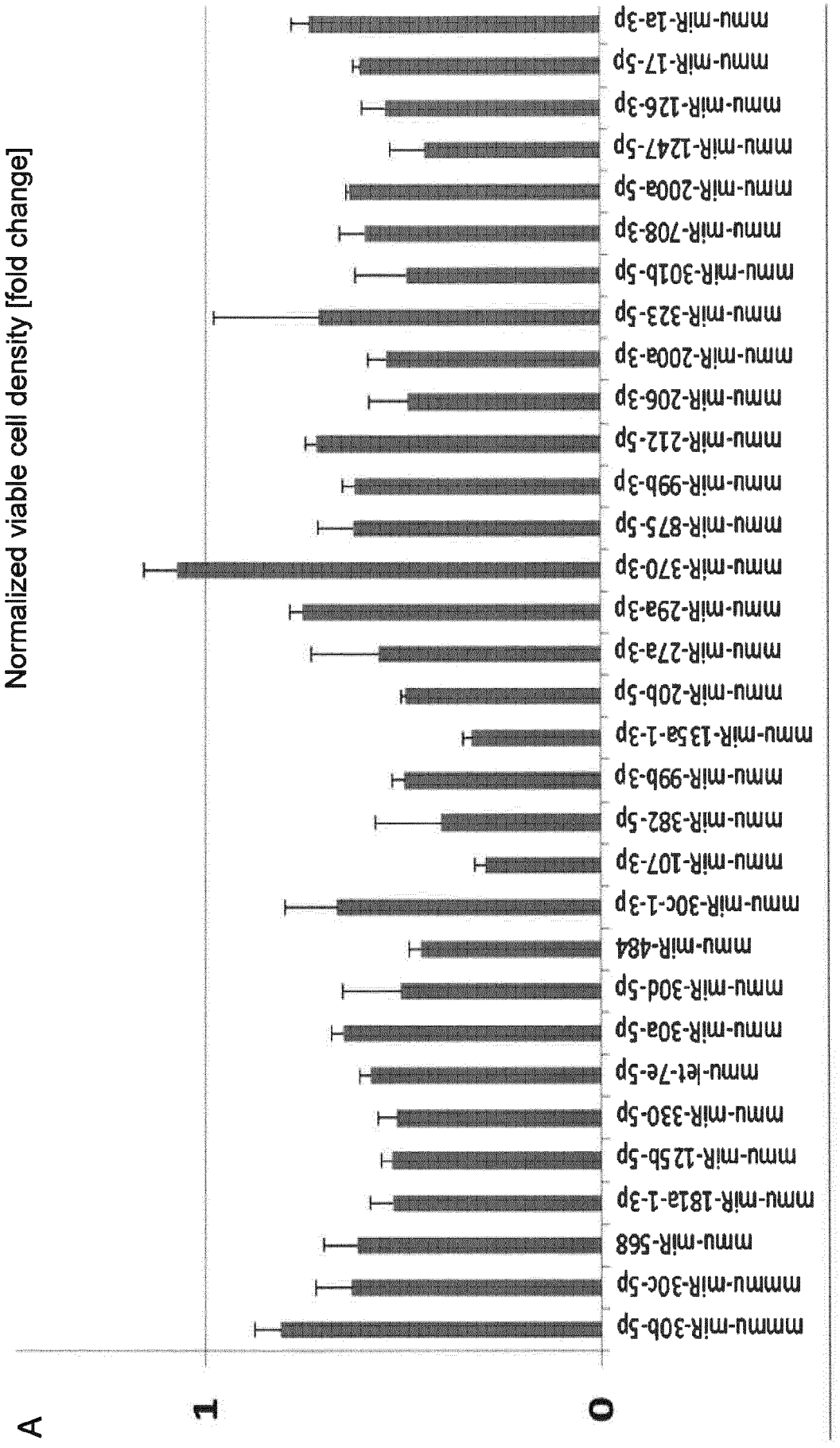

A
Normalized viable cell density [fold change]
1
0
mmu-miR-30b-5p
mmu-miR-30c-5p
mmu-miR-568
mmu-miR-1812a-1-3p
mmu-miR-125b-5p
mmu-miR-330-5p
mmu-let-7e-5p
mmu-miR-30a-5p
mmu-miR-30d-5p
mmu-miR-484
mmu-miR-30c-1-3p
mmu-miR-107-3p
mmu-miR-382-5p
mmu-miR-99b-3p
mmu-miR-135a-1-3p
mmu-miR-20b-5p
mmu-miR-27a-3p
mmu-miR-29a-3p
mmu-miR-370-3p
mmu-miR-875-5p
mmu-miR-99b-3p
mmu-miR-212-5p
mmu-miR-206-3p
mmu-miR-200a-3p
mmu-miR-323-5p
mmu-miR-301b-5p
mmu-miR-708-3p
mmu-miR-200a-5p
mmu-miR-1247-5p
mmu-miR-126-3p
mmu-miR-17-5p
mmu-miR-1a-3p

Figure 9

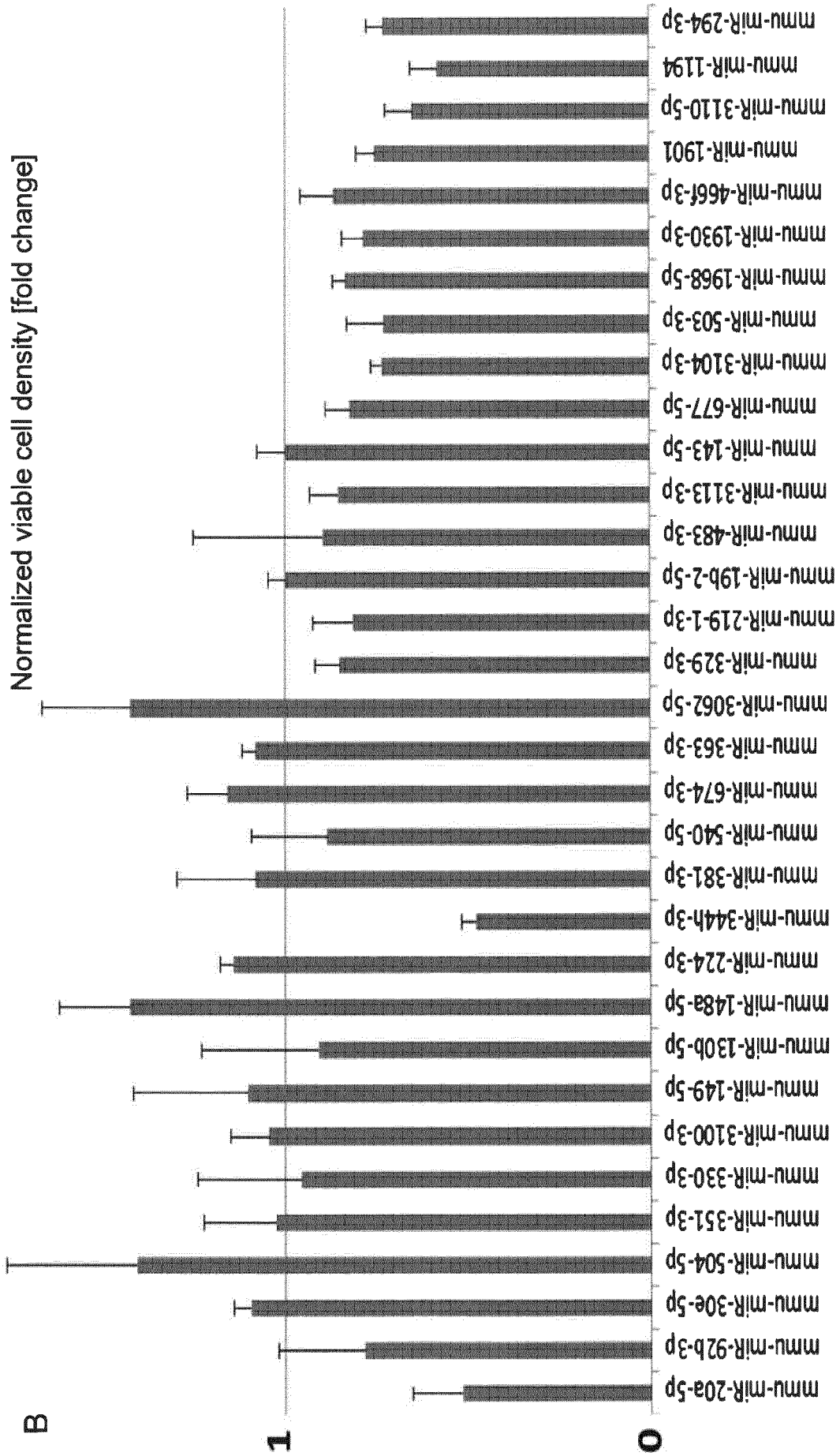


Figure 9 (continued)

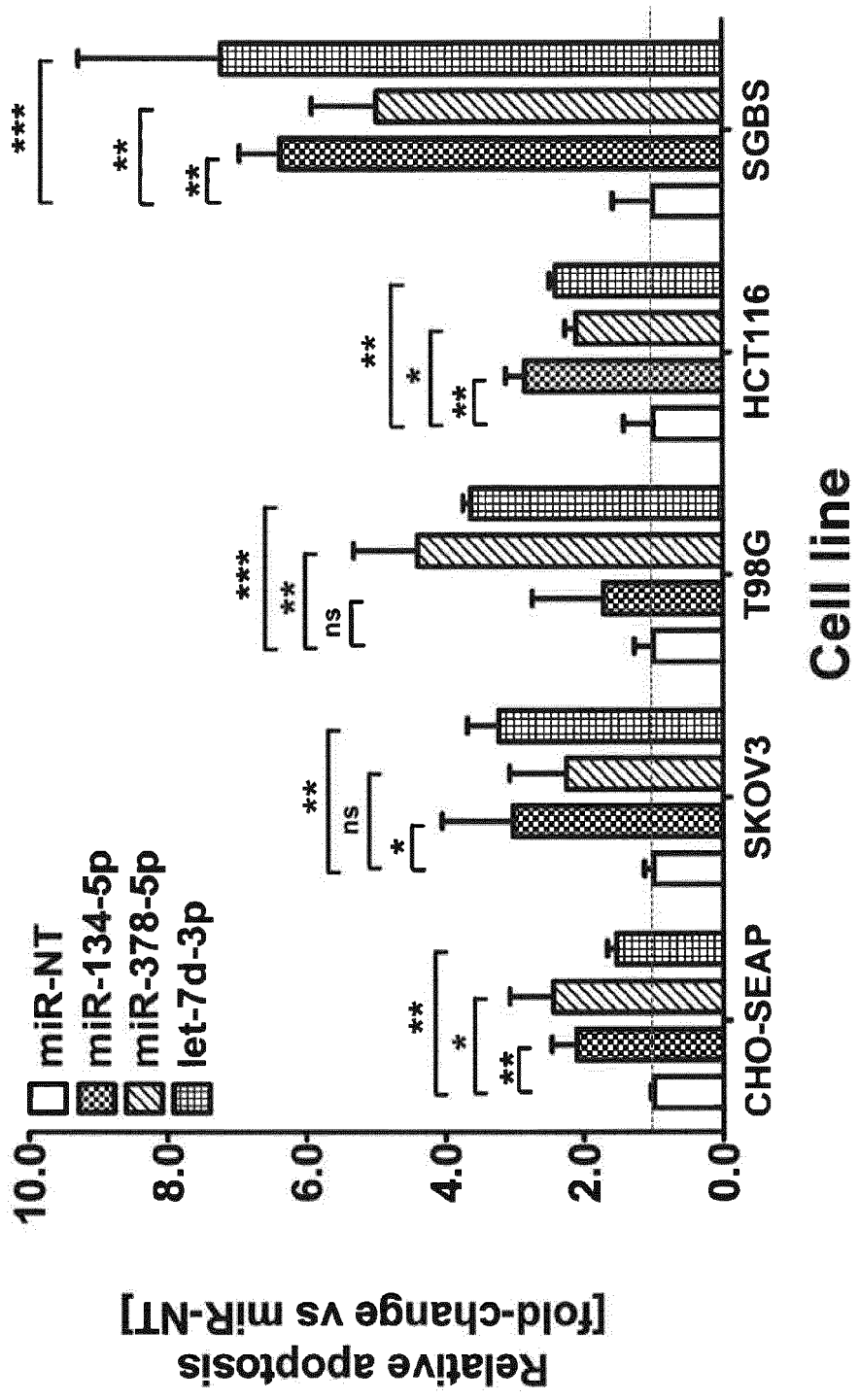

Relative apoptosis
[fold-change vs miR-NT]
10.0
8.0
6.0
4.0
2.0
0.0
miR-NT
miR-134-5p
miR-378-5p
let-7d-3p
CHO-SEAP
SKOV3
T98G
HCT116
SGBS
Cell line
**
*
**
**
ns
**
***
**
*
**
**
***

Figure 10

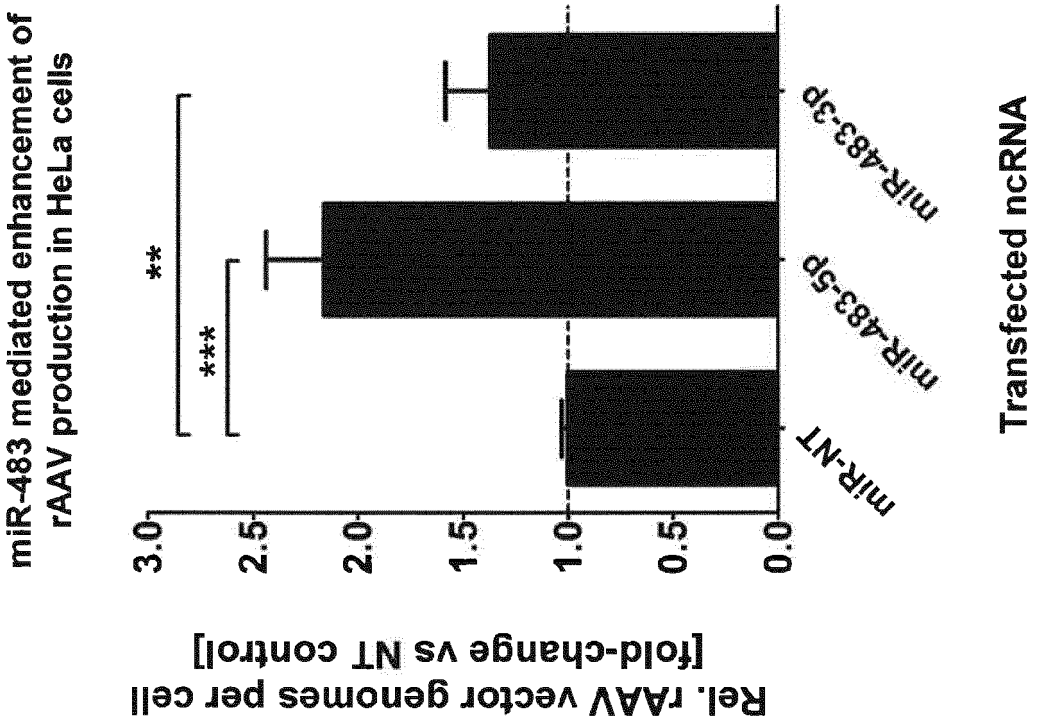

miR-483 mediated enhancement of rAAV production in HeLa cells
Rel. rAAV vector genomes per cell [fold-change vs NT control]
3.0
2.5
2.0
1.5
1.0
0.5
0.0
**
***
miR-NT
miR-483-5p
miR-483-3p
Transfected ncRNA

Figure 11