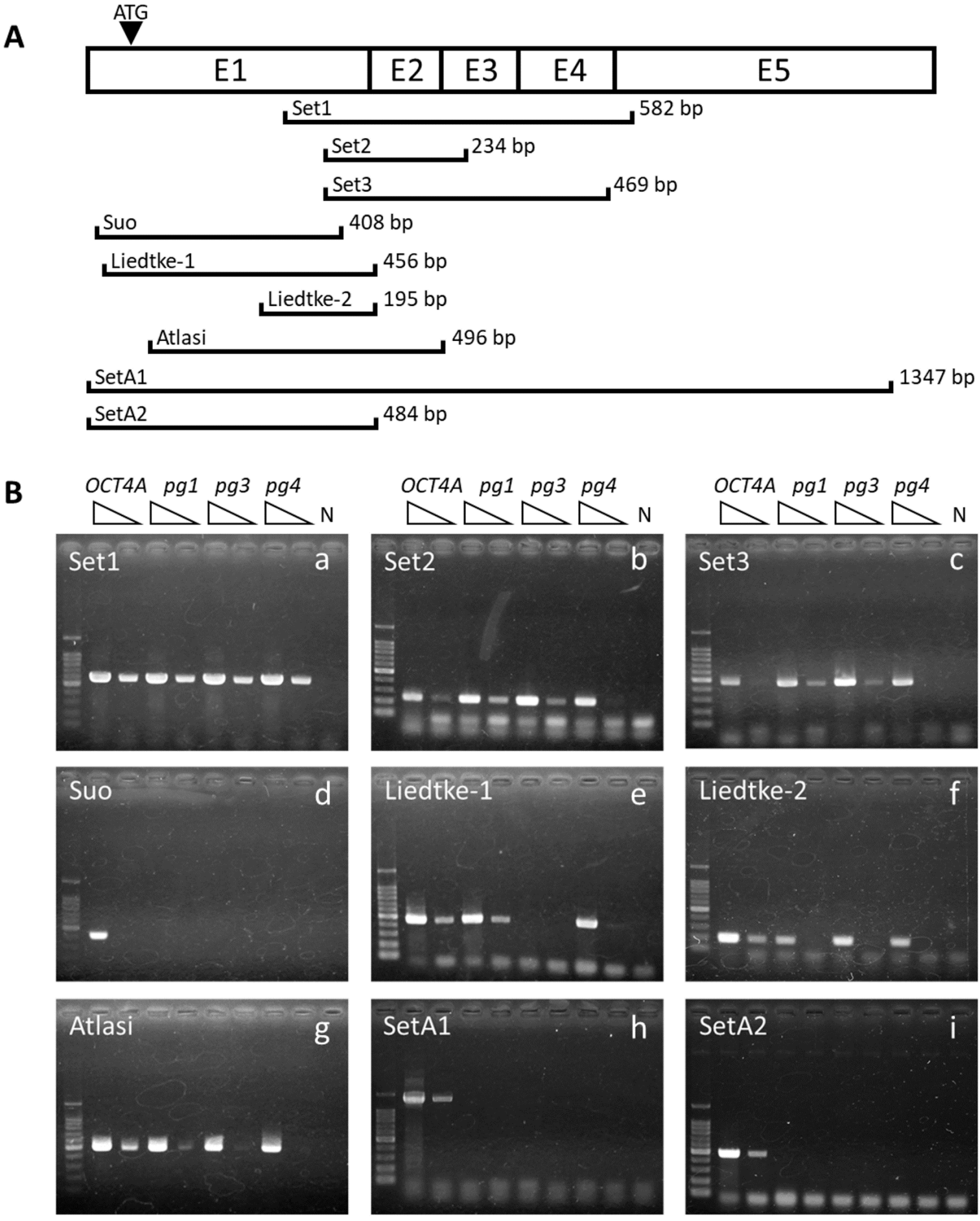
A
ATG
E1
E2
E3
E4
E5
Set1
582 bp
Set2
234 bp
Set3
469 bp
Suo
408 bp
Liedtke-1
456 bp
Liedtke-2
195 bp
Atlasi
496 bp
SetA1
1347 bp
SetA2
484 bp
B
OCT4A pg1 pg3 pg4 N
Set1 a
Set2 b
Set3 c
Suo d
Liedtke-1 e
Liedtke-2 f
Atlasi g
SetA1 h
SetA2 i
C
PG1: AGAGCTTTCAATGAAAAGTAACATAATTGCTCATTTCACCAGGCCCCCGGCT...
OCT4:AGAGGGGTTGAGTAGTCCCTTCGCAAGCCCTCATTTCACCAGGCCCCCGGCT...
SetA1-F
Suo
Liedtke

Figure 1.

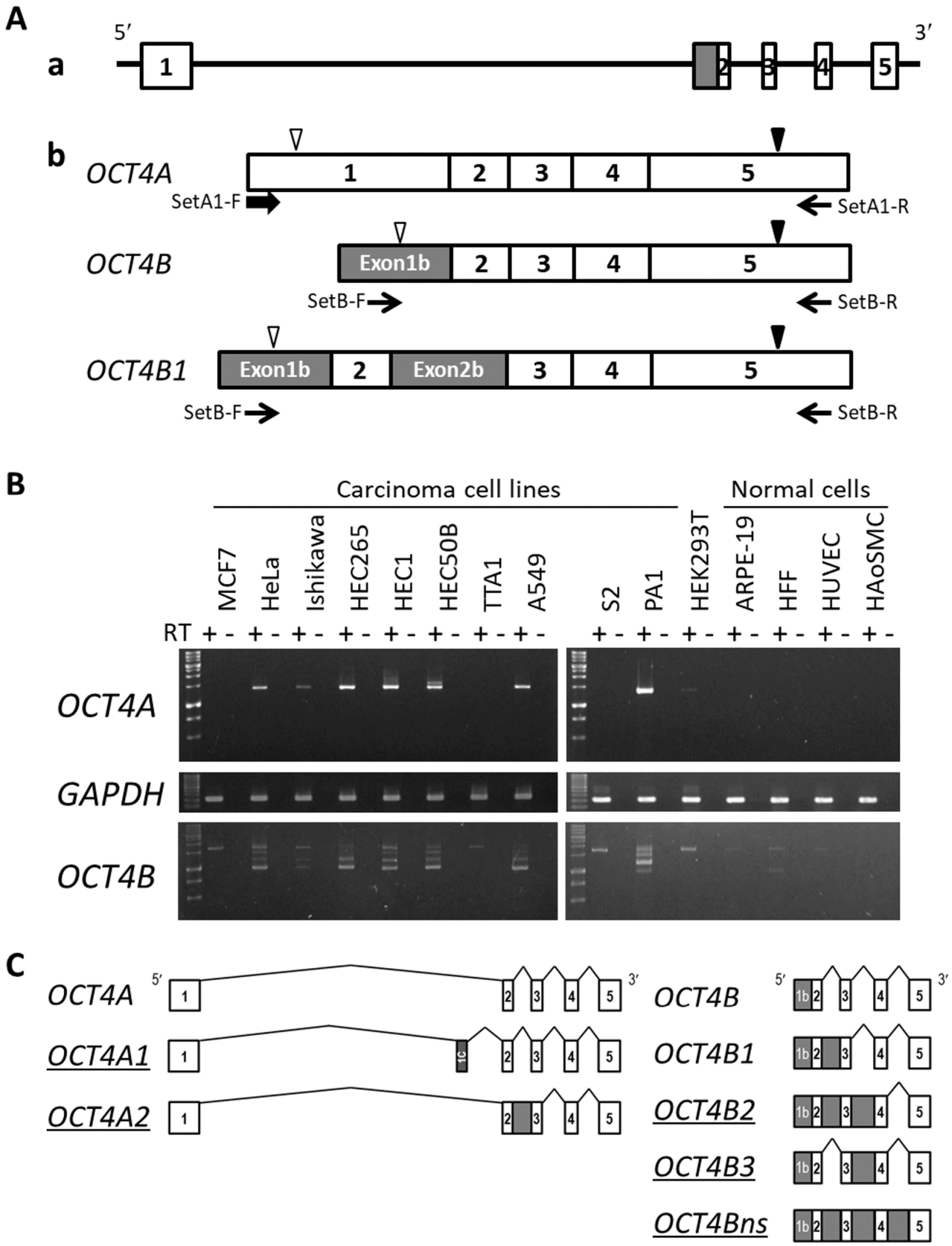
A
a
5′
3′
1
2
3
4
5
b
OCT4A
SetA1-F
SetA1-R
OCT4B
Exon1b
SetB-F
SetB-R
OCT4B1
Exon2b
B
Carcinoma cell lines
Normal cells
MCF7
HeLa
Ishikawa
HEC265
HEC1
HEC50B
TTA1
A549
S2
PA1
HEK293T
ARPE-19
HFF
HUVEC
HAoSMC
RT
OCT4A
GAPDH
OCT4B
C
OCT4A
OCT4A1
OCT4A2
OCT4B
OCT4B1
OCT4B2
OCT4B3
OCT4Bns

Figure 2.

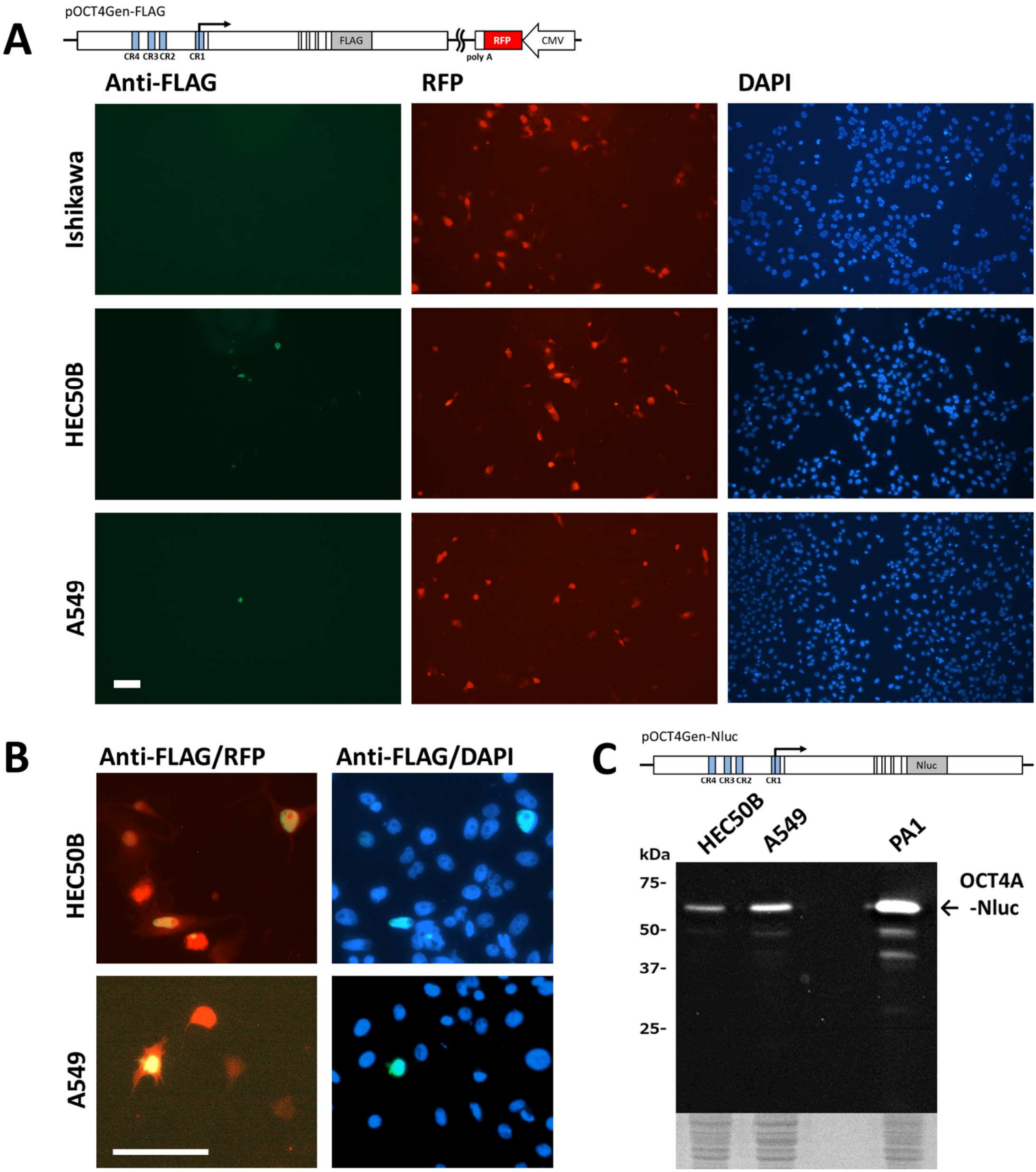
A
pOCT4Gen-FLAG
CR4 CR3 CR2
CR1
FLAG
RFP
CMV
poly A
Anti-FLAG
RFP
DAPI
Ishikawa
HEC50B
A549
B
Anti-FLAG/RFP
Anti-FLAG/DAPI
HEC50B
A549
C
pOCT4Gen-Nluc
CR4 CR3 CR2
CR1
Nluc
HEC50B
A549
PA1
kDa
75-
50-
37-
25-
OCT4A
-Nluc

Figure 3.

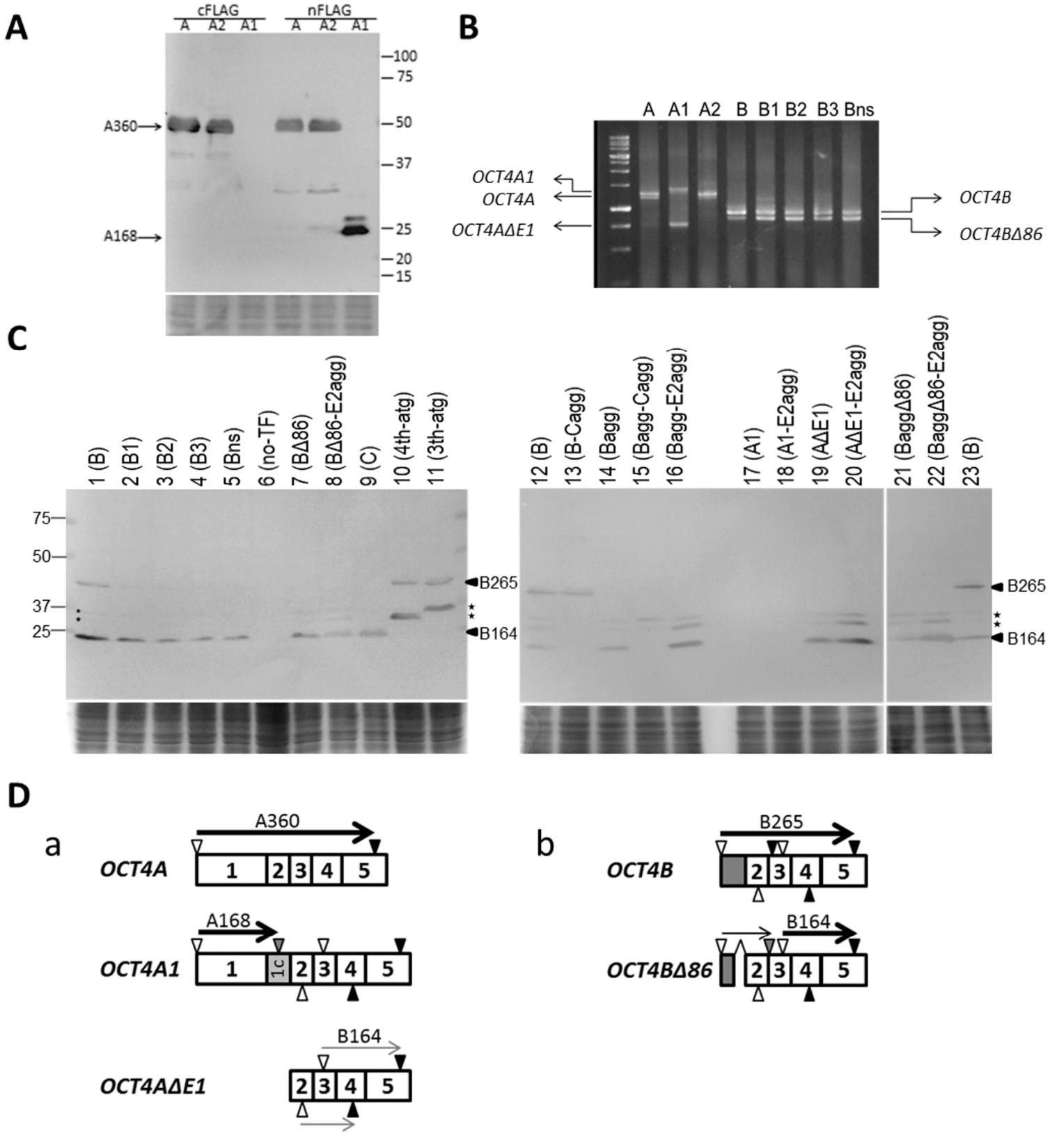
A
cFLAG
nFLAG
A A2 A1 A A2 A1
100
75
50
37
25
20
15
A360
A168
B
A A1 A2 B B1 B2 B3 Bns
OCT4A1
OCT4A
OCT4AΔE1
OCT4B
OCT4BΔ86
C
1 (B)
2 (B1)
3 (B2)
4 (B3)
5 (Bns)
6 (no-TF)
7 (BΔ86)
8 (BΔ86-E2agg)
9 (C)
10 (4th-atg)
11 (3th-atg)
12 (B)
13 (B-Cagg)
14 (Bagg)
15 (Bagg-Cagg)
16 (Bagg-E2agg)
17 (A1)
18 (A1-E2agg)
19 (AΔE1)
20 (AΔE1-E2agg)
21 (BaggΔ86)
22 (BaggΔ86-E2agg)
23 (B)
75
50
37
25
B265
B164
D
a
A360
OCT4A
1 2 3 4 5
A168
OCT4A1
1 1c 2 3 4 5
B164
OCT4AΔE1
2 3 4 5
b
B265
OCT4B
2 3 4 5
B164
OCT4BΔ86
2 3 4 5

Figure 4.

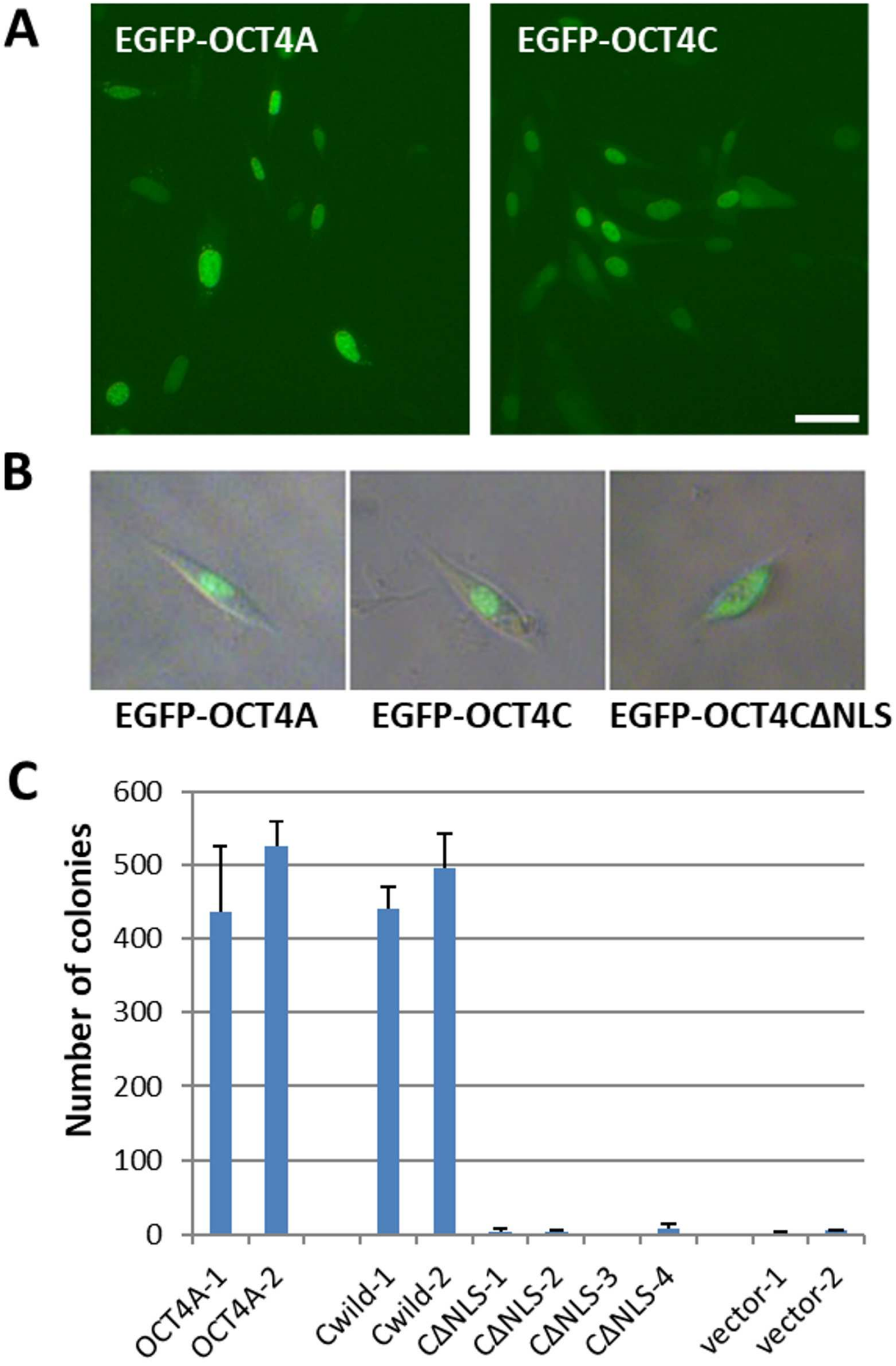
A
EGFP-OCT4A
EGFP-OCT4C
B
EGFP-OCT4A
EGFP-OCT4C
EGFP-OCT4CΔNLS
C
Number of colonies
600
500
400
300
200
100
0
OCT4A-1
OCT4A-2
Cwild-1
Cwild-2
CΔNLS-1
CΔNLS-2
CΔNLS-3
CΔNLS-4
vector-1
vector-2

Figure 5.

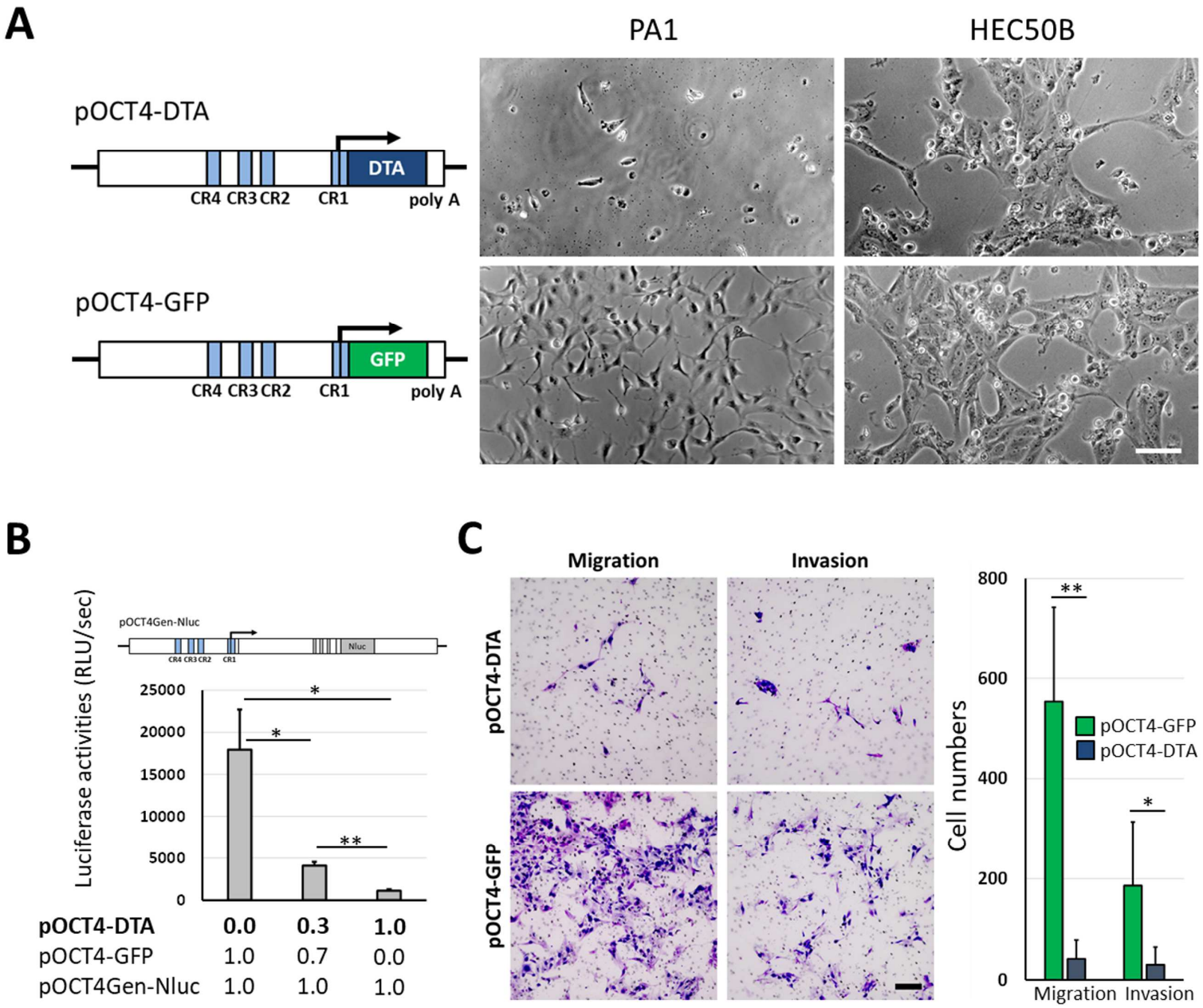
A
PA1
HEC50B
pOCT4-DTA
DTA
CR4 CR3 CR2
CR1
poly A
pOCT4-GFP
GFP
CR4 CR3 CR2
CR1
poly A
B
pOCT4Gen-Nluc
Nluc
CR4 CR3 CR2
CR1
Luciferase activities (RLU/sec)
25000
20000
15000
10000
5000
0
*
*
**
pOCT4-DTA 0.0 0.3 1.0
pOCT4-GFP 1.0 0.7 0.0
pOCT4Gen-Nluc 1.0 1.0 1.0
C
Migration
Invasion
pOCT4-DTA
pOCT4-GFP
Cell numbers
800
600
400
200
0
**
*
pOCT4-GFP
pOCT4-DTA
Migration
Invasion

Figure 6.