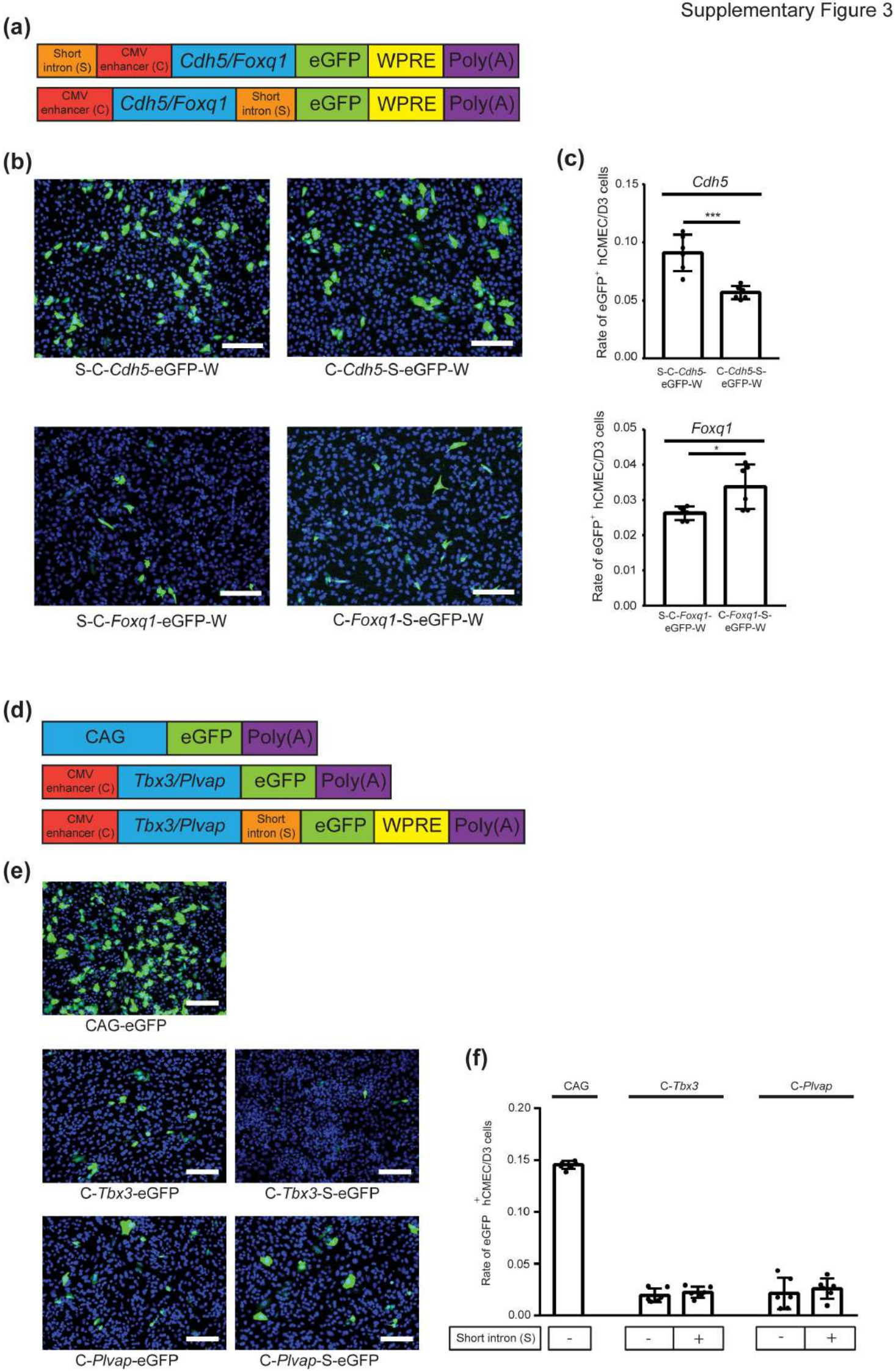
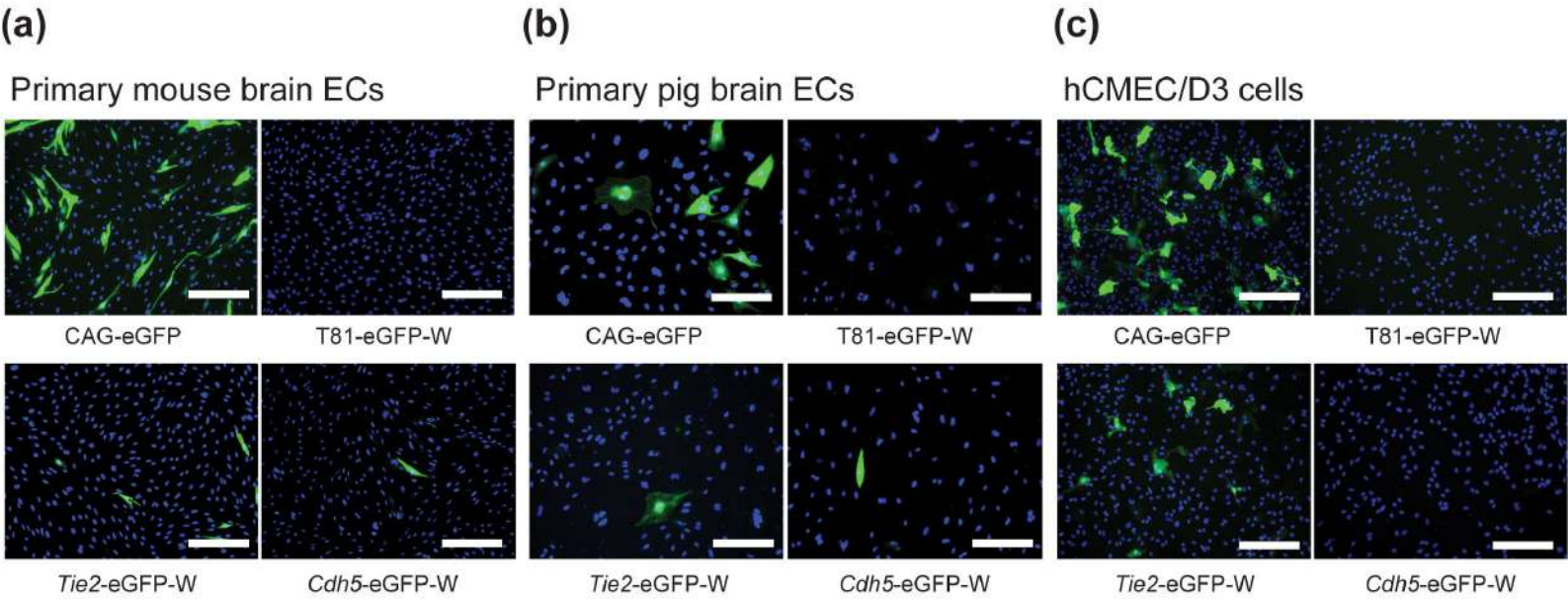
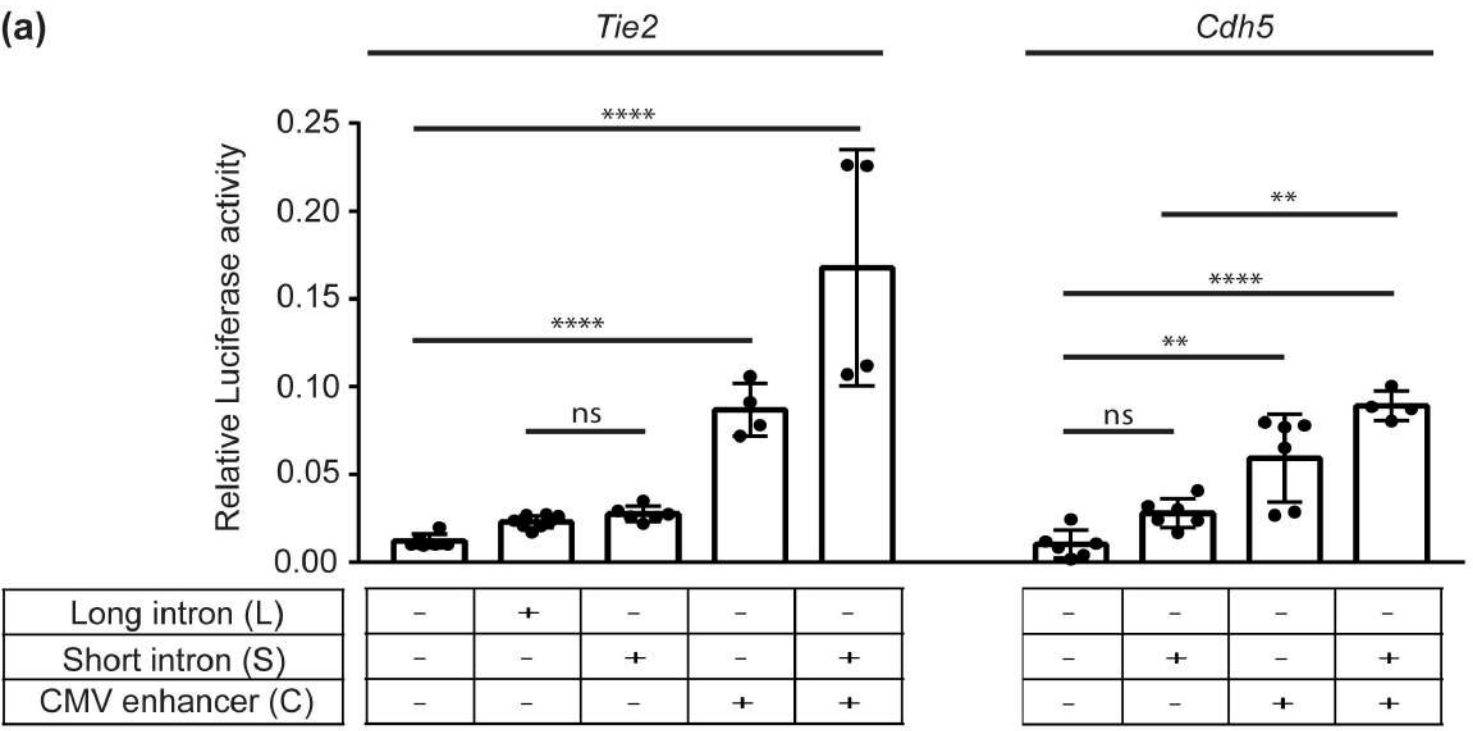
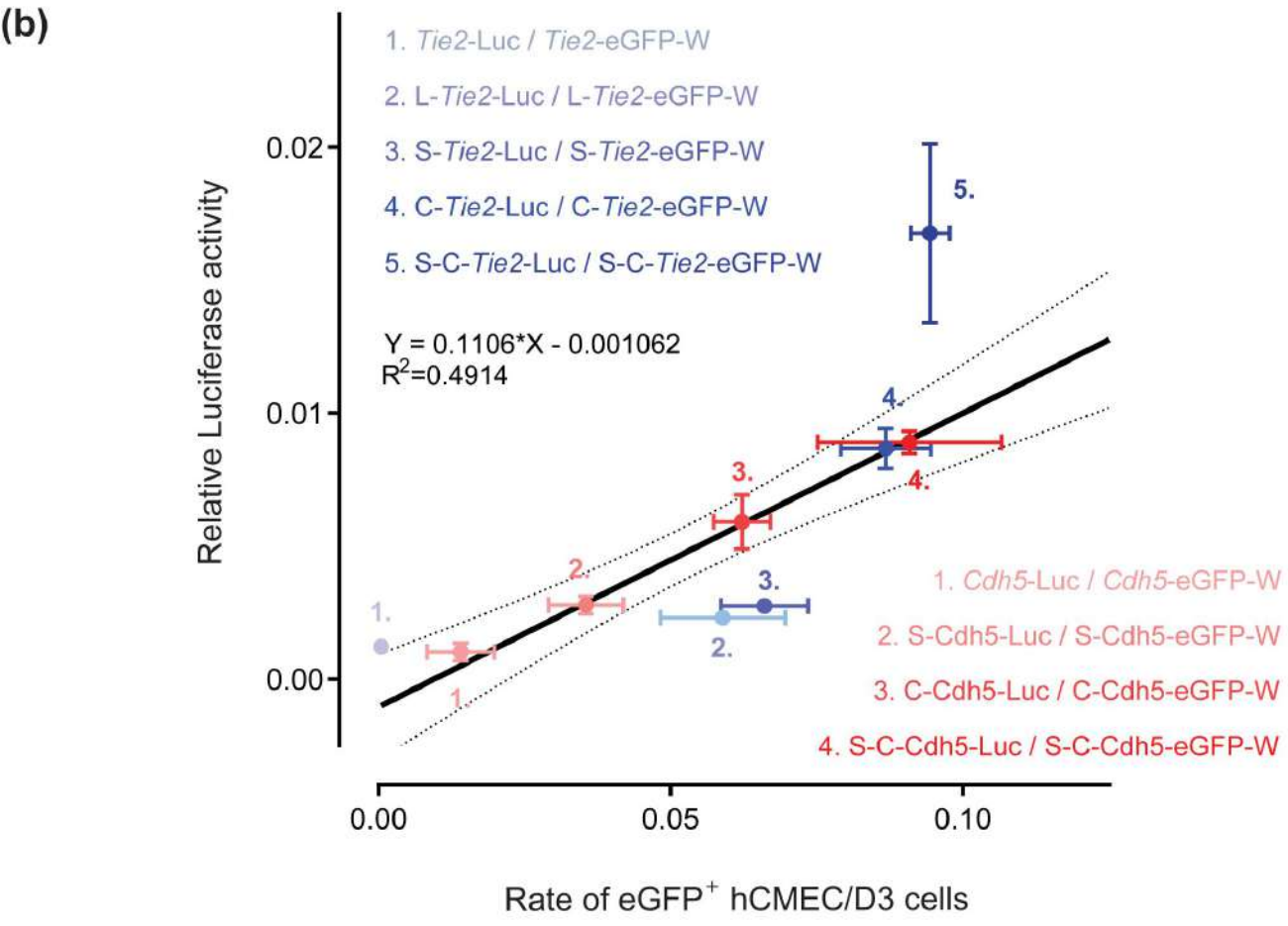
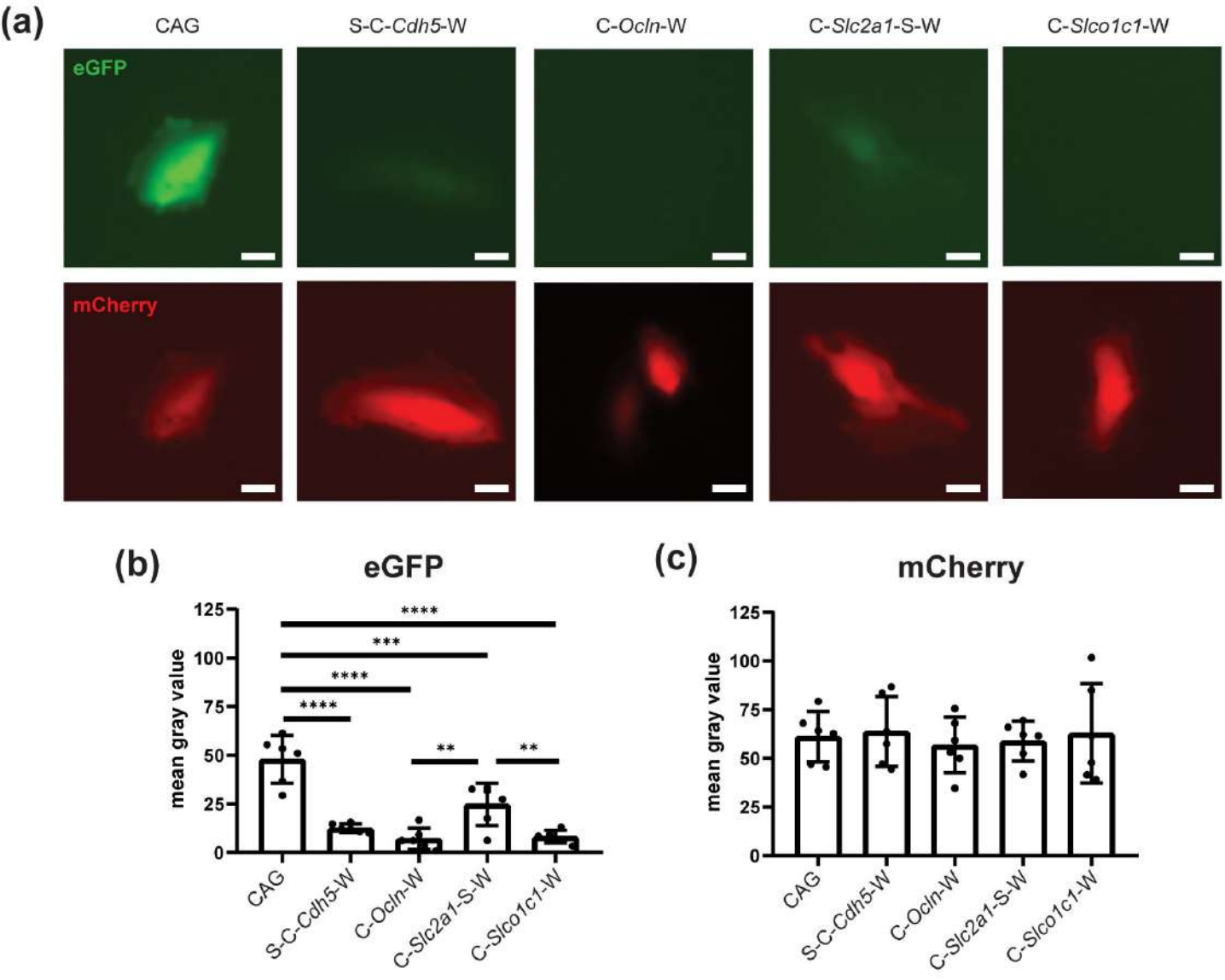

(a)
Short intron (S)
CMV enhancer (C)
Cdh5/Foxq1
eGFP
WPRE
Poly(A)
CMV enhancer (C)
Cdh5/Foxq1
Short intron (S)
eGFP
WPRE
Poly(A)
(b)
S-C-Cdh5-eGFP-W
C-Cdh5-S-eGFP-W
S-C-Foxq1-eGFP-W
C-Foxq1-S-eGFP-W
(c)
Cdh5
***
Rate of eGFP+ hCMEC/D3 cells
0.15
0.10
0.05
0.00
S-C-Cdh5-eGFP-W
C-Cdh5-S-eGFP-W
Foxq1
*
0.05
0.04
0.03
0.02
0.01
0.00
S-C-Foxq1-eGFP-W
C-Foxq1-S-eGFP-W
(d)
CAG
eGFP
Poly(A)
CMV enhancer (C)
Tbx3/Plvap
eGFP
Poly(A)
CMV enhancer (C)
Tbx3/Plvap
Short intron (S)
eGFP
WPRE
Poly(A)
(e)
CAG-eGFP
C-Tbx3-eGFP
C-Tbx3-S-eGFP
C-Plvap-eGFP
C-Plvap-S-eGFP
(f)
CAG
C-Tbx3
C-Plvap
Rate of eGFP+ hCMEC/D3 cells
0.20
0.15
0.10
0.05
0.00
Short intron (S)
-
-
+
-
+

Supplementary Figure 1




(a)
Tie2
Cdh5
Relative Luciferase activity
0.25
0.20
0.15
0.10
0.05
0.00
****
****
ns
**
****
**
ns
Long intron (L)
Short intron (S)
CMV enhancer (C)


(b)
1. Tie2-Luc / Tie2-eGFP-W
2. L-Tie2-Luc / L-Tie2-eGFP-W
3. S-Tie2-Luc / S-Tie2-eGFP-W
4. C-Tie2-Luc / C-Tie2-eGFP-W
5. S-C-Tie2-Luc / S-C-Tie2-eGFP-W
Y = 0.1106*X - 0.001062
R2=0.4914
1. Cdh5-Luc / Cdh5-eGFP-W
2. S-Cdh5-Luc / S-Cdh5-eGFP-W
3. C-Cdh5-Luc / C-Cdh5-eGFP-W
4. S-C-Cdh5-Luc / S-C-Cdh5-eGFP-W
Relative Luciferase activity
0.02
0.01
0.00
0.00
0.05
0.10
Rate of eGFP+ hCMEC/D3 cells

Supplementary Figure 4