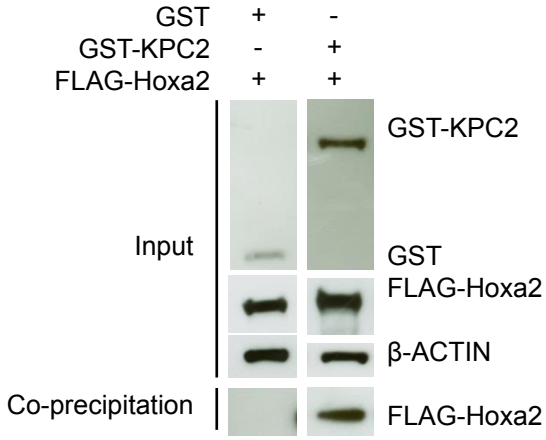

GST + -
GST-KPC2 - +
FLAG-Hoxa2 + +
GST-KPC2
Input
GST
FLAG-Hoxa2
β-ACTIN
Co-precipitation
FLAG-Hoxa2

Figure 1.

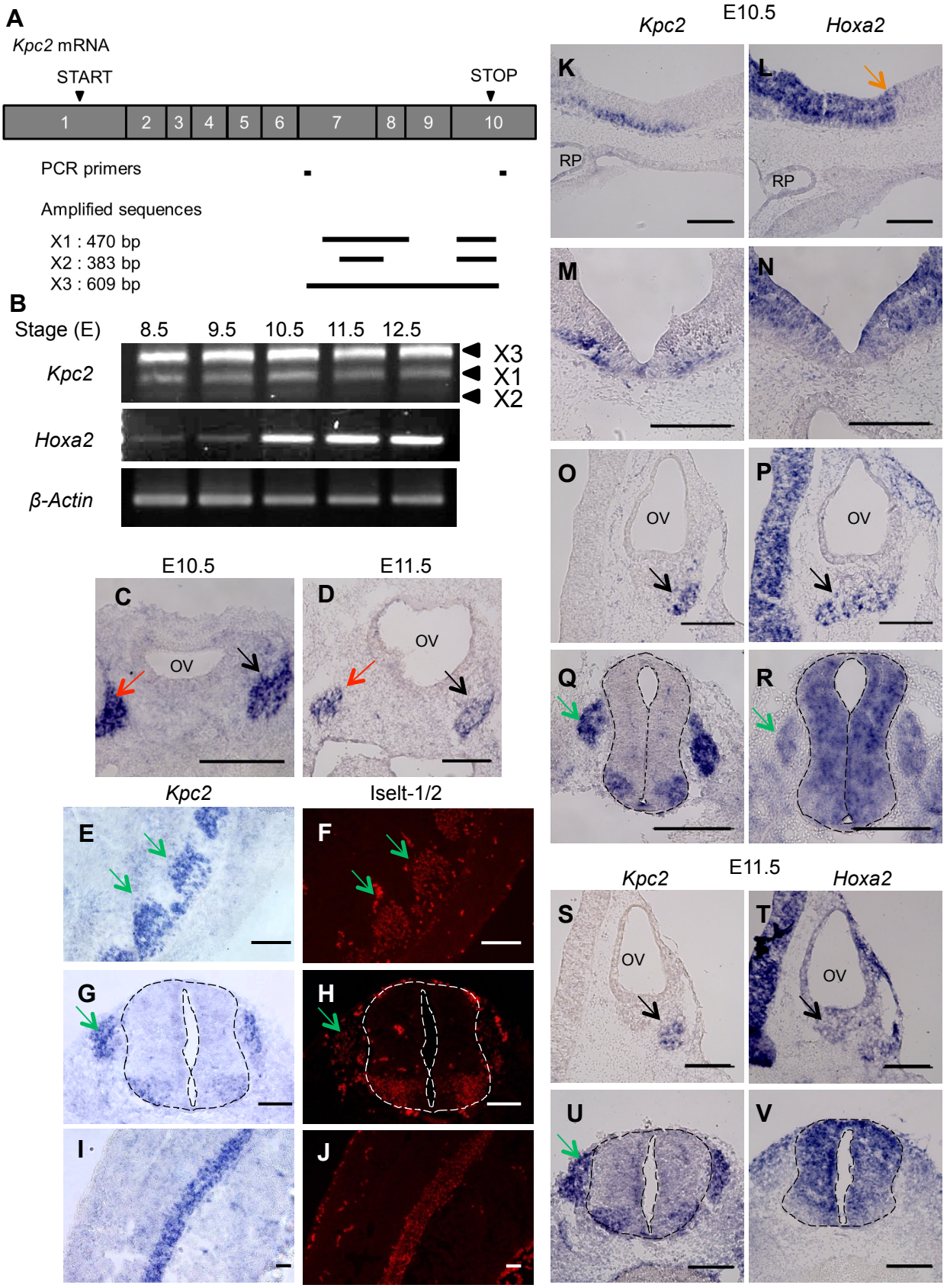

A
Kpc2 mRNA
START
STOP
1
2
3
4
5
6
7
8
9
10
PCR primers
Amplified sequences
X1 : 470 bp
X2 : 383 bp
X3 : 609 bp
B
Stage (E)
8.5
9.5
10.5
11.5
12.5
Kpc2
Hoxa2
β-Actin
X3
X1
X2
E10.5
E11.5
C
D
OV
Kpc2
Iselt-1/2
E
F
G
H
I
J
E10.5
Kpc2
Hoxa2
K
L
RP
M
N
O
P
OV
Q
R
E11.5
Kpc2
Hoxa2
S
T
OV
U
V

Figure 2.

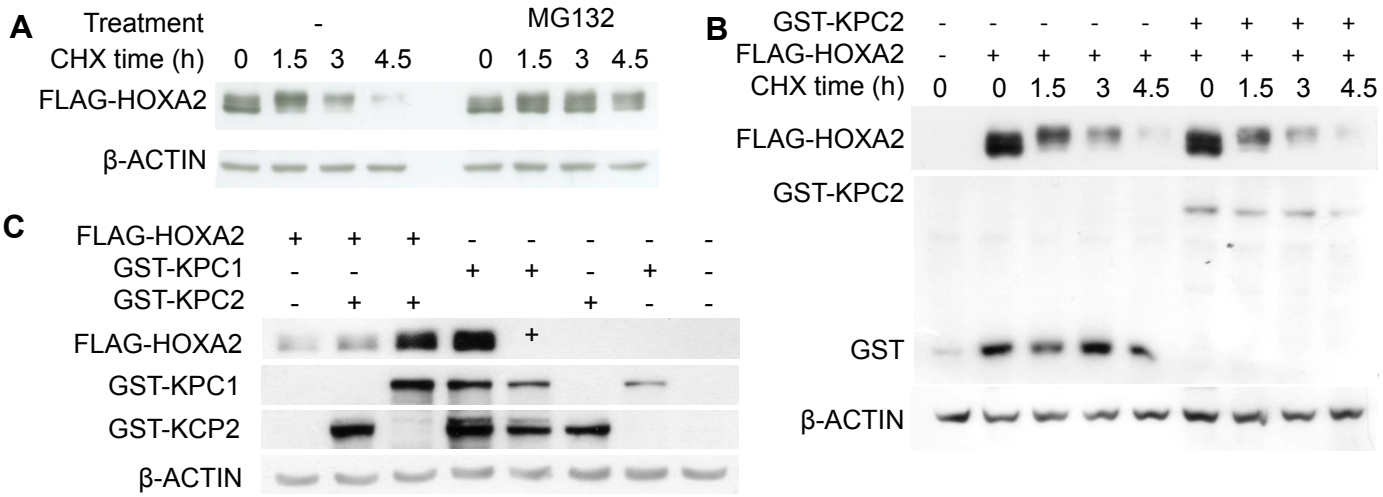

A
Treatment - MG132
CHX time (h) 0 1.5 3 4.5 0 1.5 3 4.5
FLAG-HOXA2
β-ACTIN
B
GST-KPC2 - - - - - + + + +
FLAG-HOXA2 - + + + + + + + +
CHX time (h) 0 0 1.5 3 4.5 0 1.5 3 4.5
FLAG-HOXA2
GST-KPC2
GST
β-ACTIN
C
FLAG-HOXA2 + + + - - - - -
GST-KPC1 - - + + - + -
GST-KPC2 - + + + - - -
FLAG-HOXA2
GST-KPC1
GST-KCP2
β-ACTIN

Figure 3.

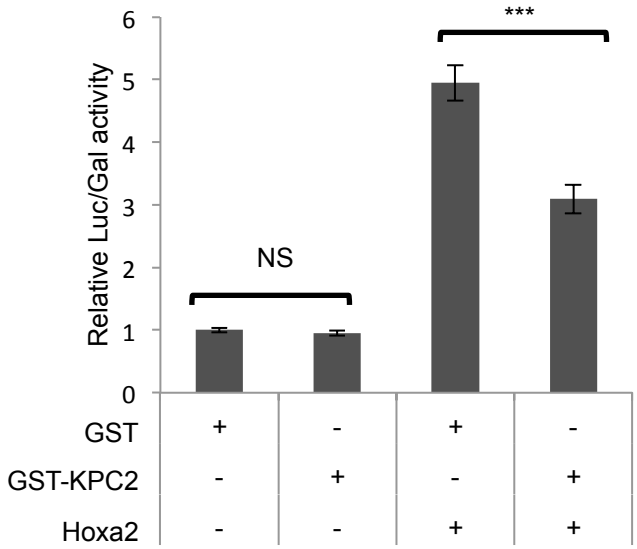


Figure 4.

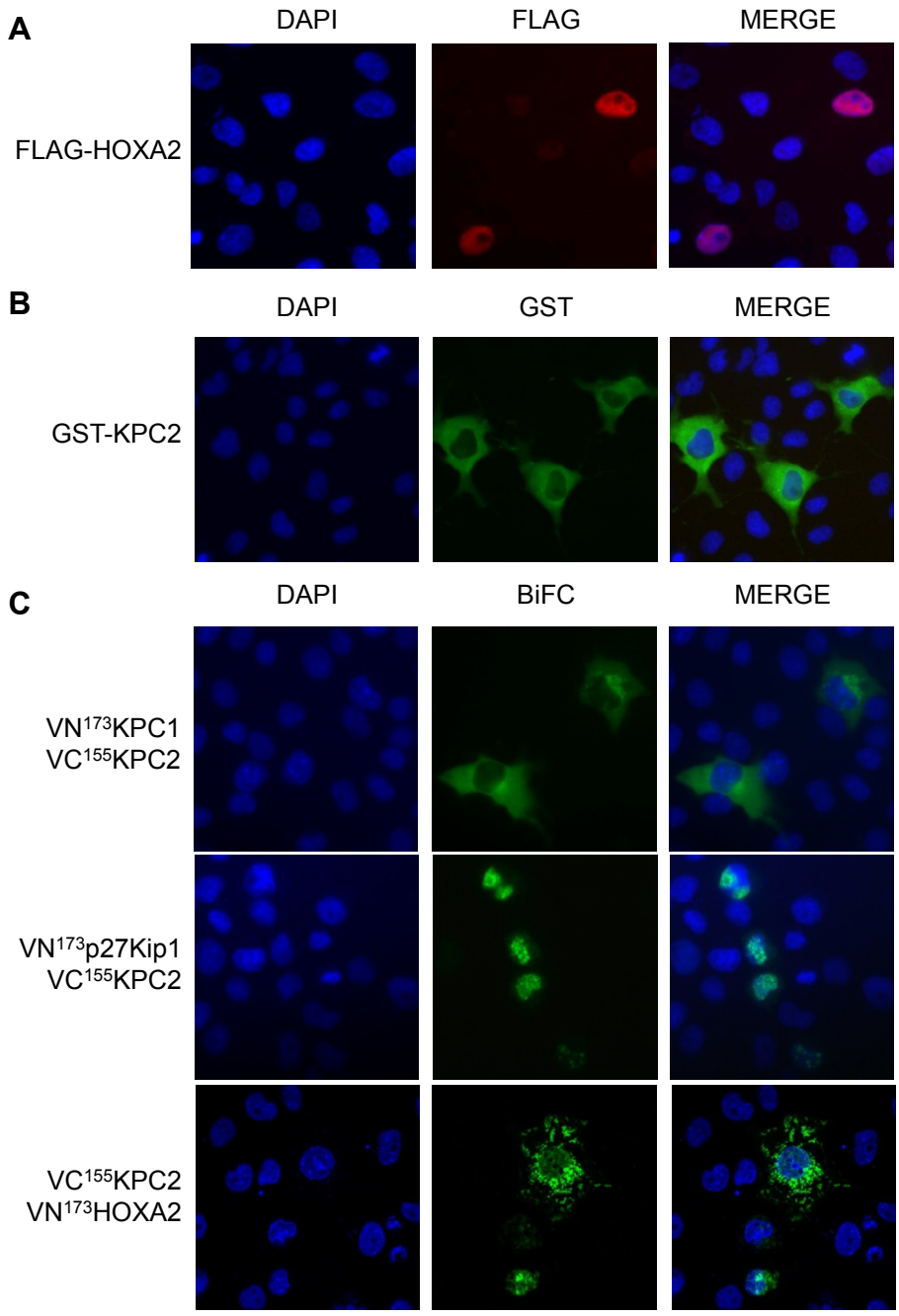

A
DAPI
FLAG
MERGE
FLAG-HOXA2
B
DAPI
GST
MERGE
GST-KPC2
C
DAPI
BiFC
MERGE
VN173KPC1
VC155KPC2
VN173p27Kip1
VC155KPC2
VC155KPC2
VN173HOXA2

Figure 5.

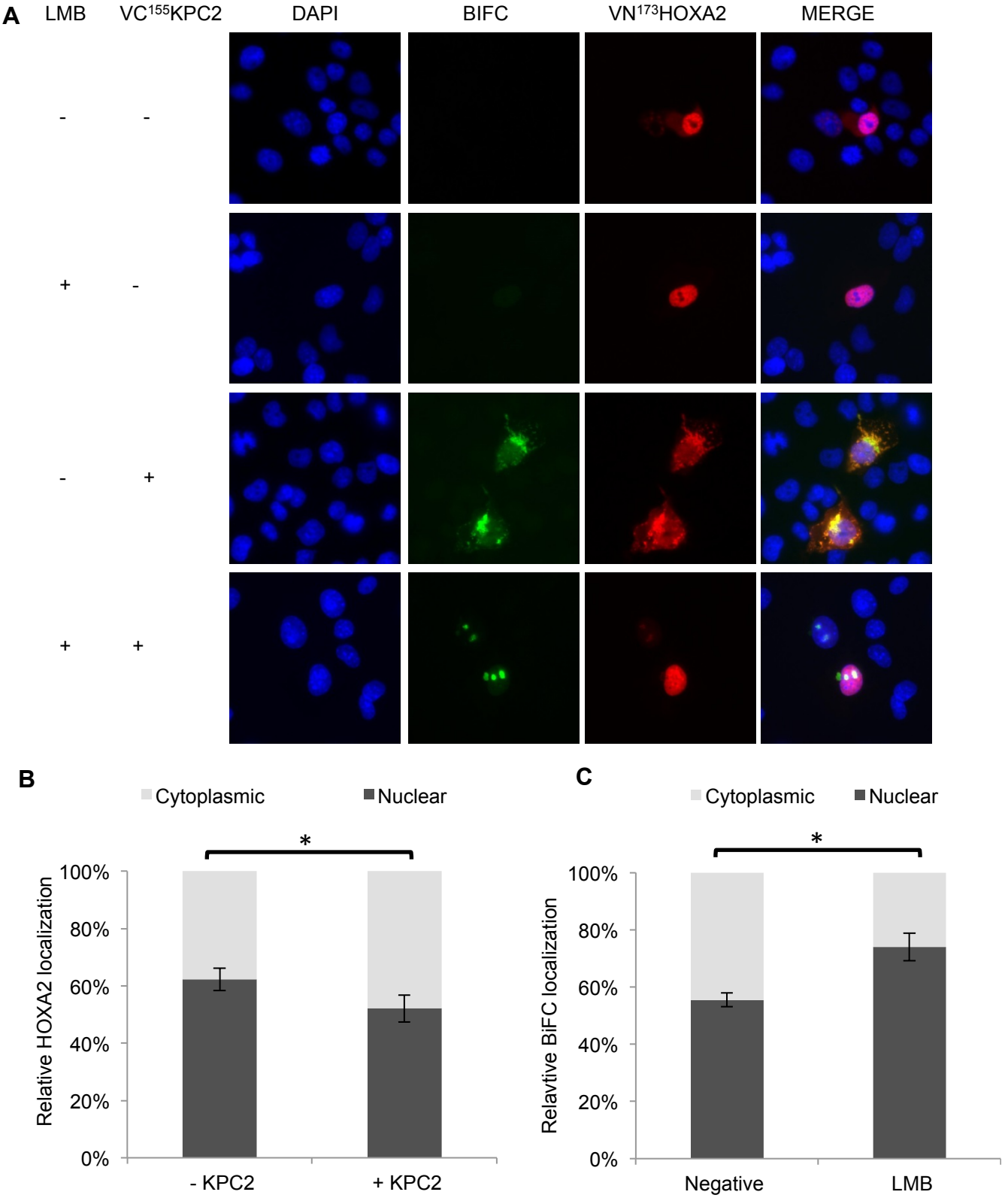

A
LMB
VC155KPC2
DAPI
BIFC
VN173HOXA2
MERGE
-
-
+
-
-
+
+
+
B
Cytoplasmic
Nuclear
*
Relative HOXA2 localization
100%
80%
60%
40%
20%
0%
- KPC2
+ KPC2
C
Cytoplasmic
Nuclear
*
Relavtive BiFC localization
100%
80%
60%
40%
20%
0%
Negative
LMB

Figure 6.

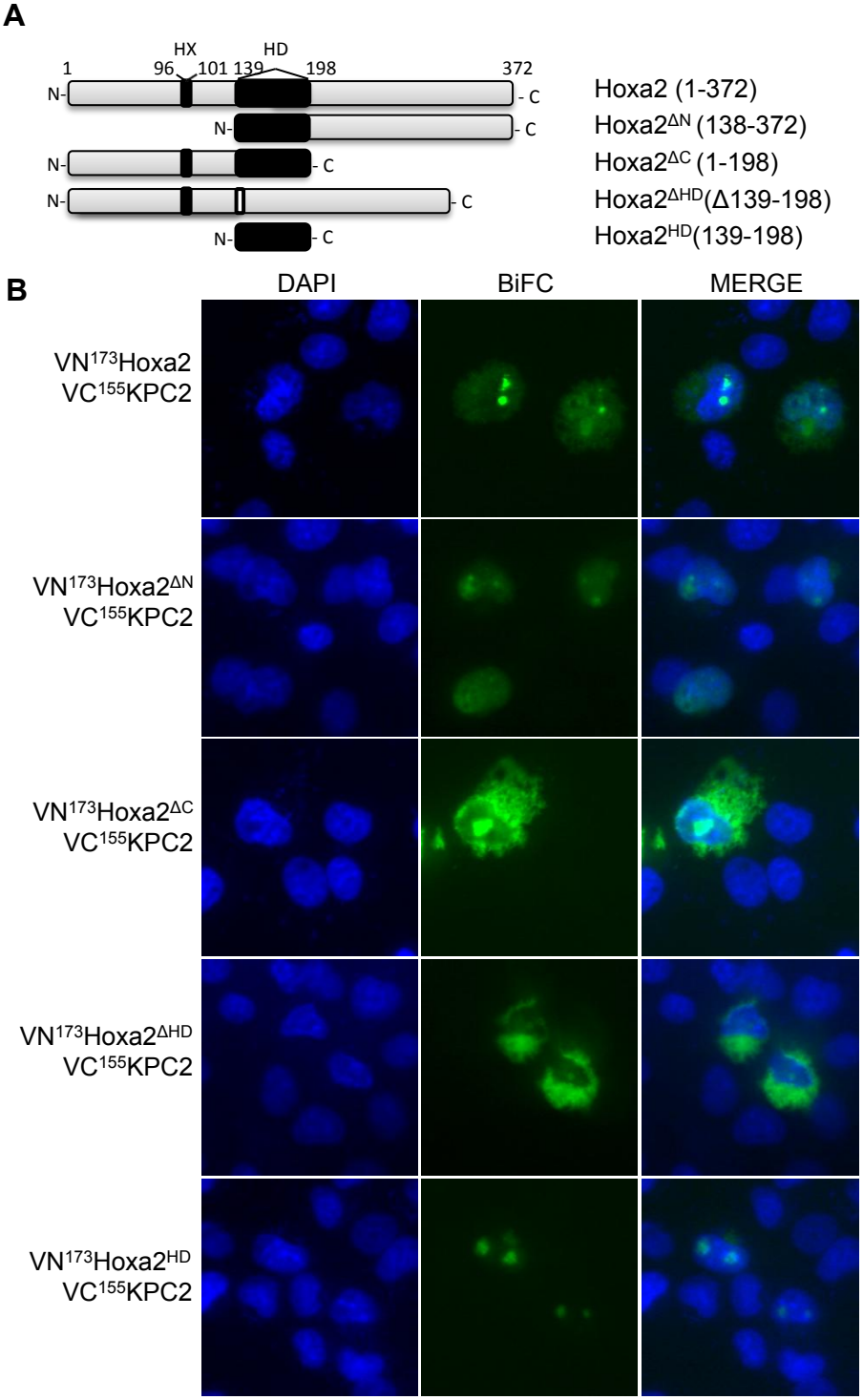

A
HX
HD
1
96
101
139
198
372
N-
- C
Hoxa2 (1-372)
Hoxa2ΔN (138-372)
Hoxa2ΔC (1-198)
Hoxa2ΔHD(Δ139-198)
Hoxa2HD(139-198)
B
DAPI
BiFC
MERGE
VN173Hoxa2
VC155KPC2
VN173Hoxa2ΔN
VC155KPC2
VN173Hoxa2ΔC
VC155KPC2
VN173Hoxa2ΔHD
VC155KPC2
VN173Hoxa2HD
VC155KPC2

Figure 7.

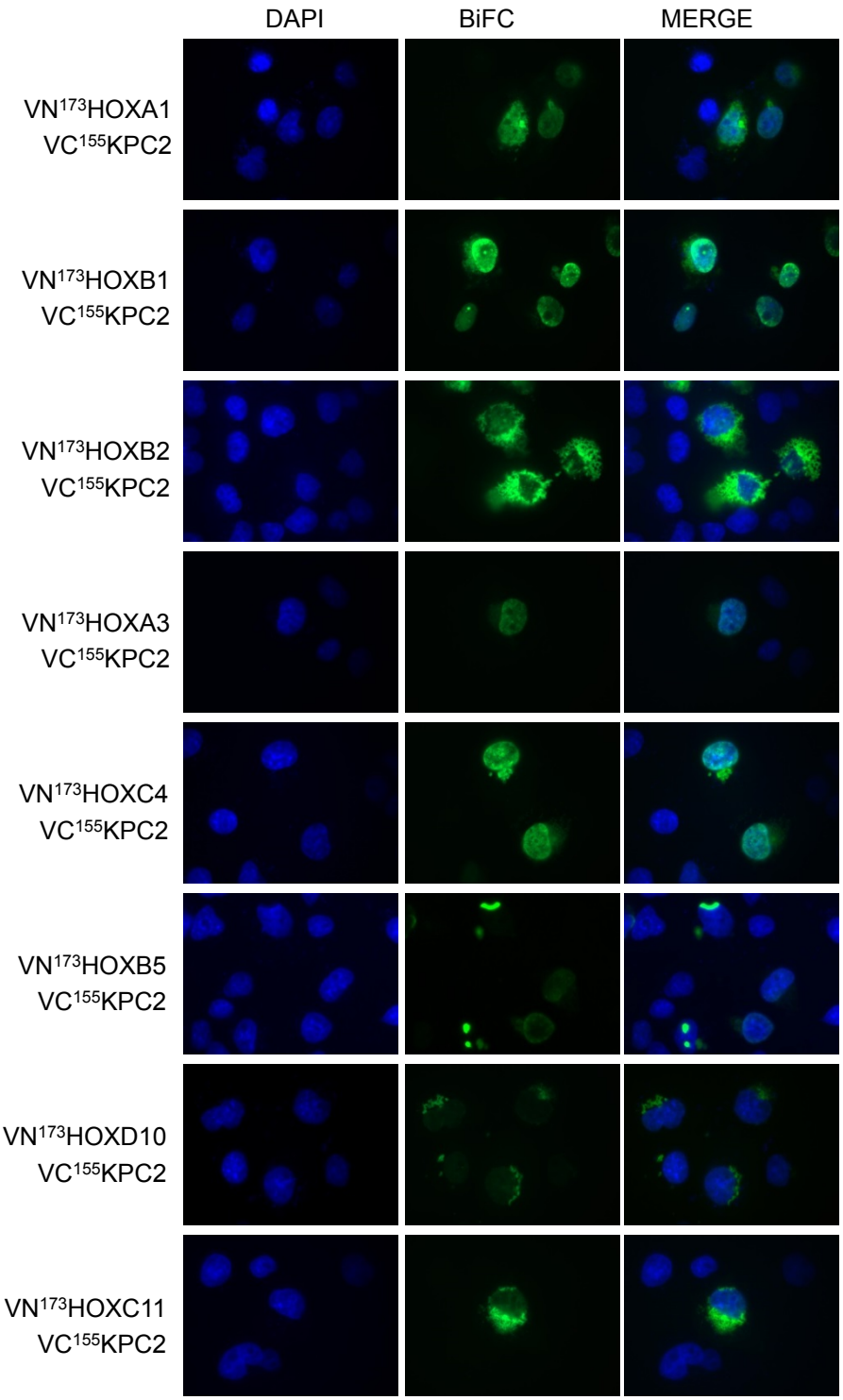

DAPI
BiFC
MERGE
VN173HOXA1
VC155KPC2
VN173HOXB1
VC155KPC2
VN173HOXB2
VC155KPC2
VN173HOXA3
VC155KPC2
VN173HOXC4
VC155KPC2
VN173HOXB5
VC155KPC2
VN173HOXD10
VC155KPC2
VN173HOXC11
VC155KPC2

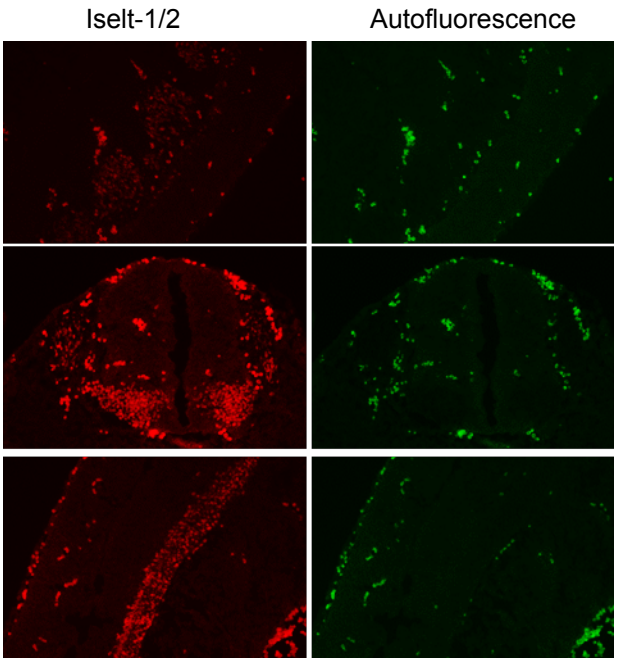
Figure 8.

X3 (609 bp) :
GTAGTACACCTACGTGCGATTCAGCGTCTGGAAGATCCTAGAGATCTGCAGCATGACCGGGCCCGTCTCTGGGTC
GTTCATCCACTGGGTGCTGTTAAGCGGATTCTCCAGCATGTCTTCAAATGCTAGCAATGTCTTAGGGTTTGTCAAAC
CCAGCTGCACCACTGGGTTGTCCAGGATGGCCTGAAAGAGAGGGCTATTGGGATCGATGCCCTGGTCCAATTCCT
CAGGGGATGGCTTCCGGTCCCCCAGCAGCCATTCACAAGCAGCGTTCTGCTGGTTGTTGTTCACTCGGAGGGCAT
CAATCACTTCCTTCTCGTCAAAGCCCATCTCCATCAGCGAAATGACAGCCCGAGCATCTGCTCGAAATTCCTTTTTC
CTGCGTATCTTCTTGAAGATTTCTGTGAGCTCATCCCGGGACTCCTCATCTTCAAGACTAGTTCCCACAGCAGCTTC
AGAGGAGGTGGAGGAGGTAGTGGCTGCAGCACTGGCCCCTGCTTGAGCAGCATGGCCTGGAAGAGGTGTGTCA
ATAGCTGGATCTTCTGAGTGTTCAATTAGCCACTCCATGGCCTGA

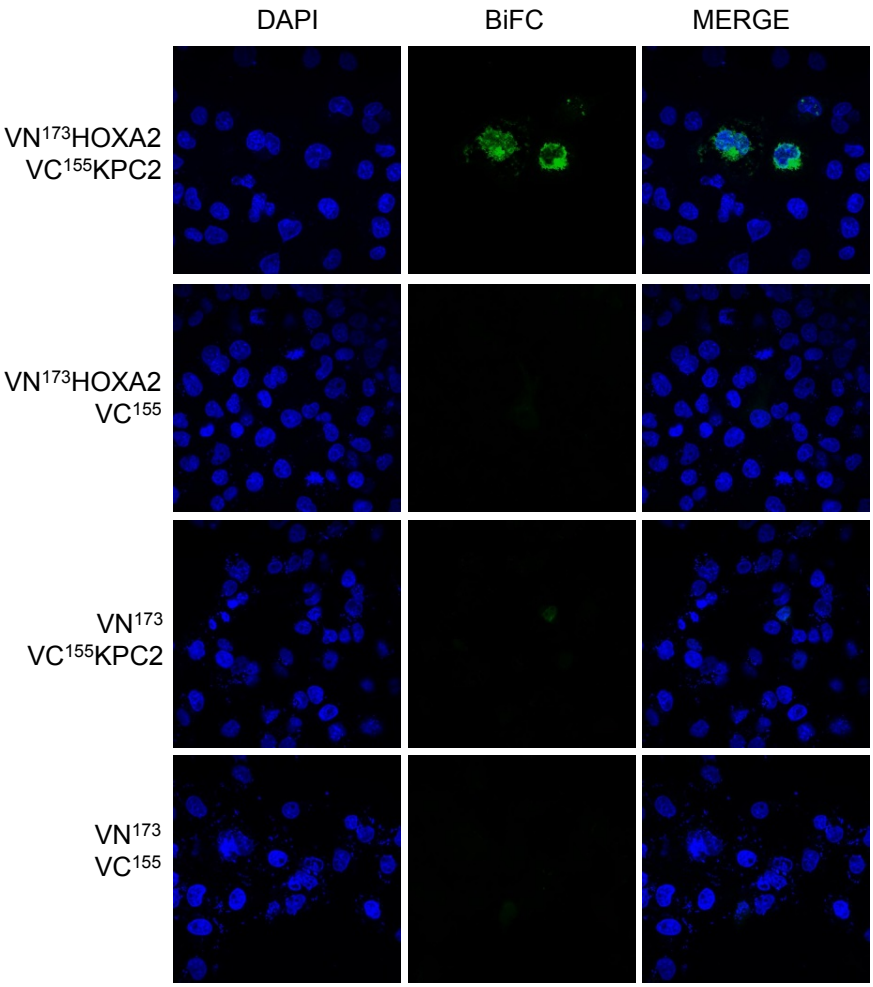
X2 (383 bp) :
TTCCCGTTATGAGCTCGCAGAAATCTTCAAGAAGATACCAGTAAAAAGGAACCACAGCAGCTGCTGGGCGTTTGAA
GACATCCTGGAGAATCCGCTTAACAGCACCCAGTGGATGAACGACCCAGAGACGGGCCCGGTCATGCTGCAGATC
TCTAGGATCTTCCAGACGCTGAATCGCACGTAGGTG

X1 (470 bp) :
TACCTCTTCCGGCCATGCTGCTCAAGCAGGGGCCAGTGCTGCAGCCACTACCTCCTCCACCTCCTCTGAAGCTGC
TGTGGGAACTAGTGGTGAAGATGAGGAGTCCCGGGATGAGCTTACGGAAATCTTCATGAAGATACACAAGAAAAAG
GAAATTAGAGCAGATGCTCGGGCTGTCATTTCGCTGATGGAGATGGGCTTTCCCGAGAAGGAAGTGATTGATGCCC
TCCGAGTGAACAACAACCAGCAGAACGCTGCTCATTTGAAGACATGCTGGAGAATCCGCTTAACAGCACCCAGTG
GATGAACGGCCCCATACGGGCCCGGTCATGCTGCAGATCTCTAGGATCTTCCAGACGCTGAATCGCATCGTAGGT
G

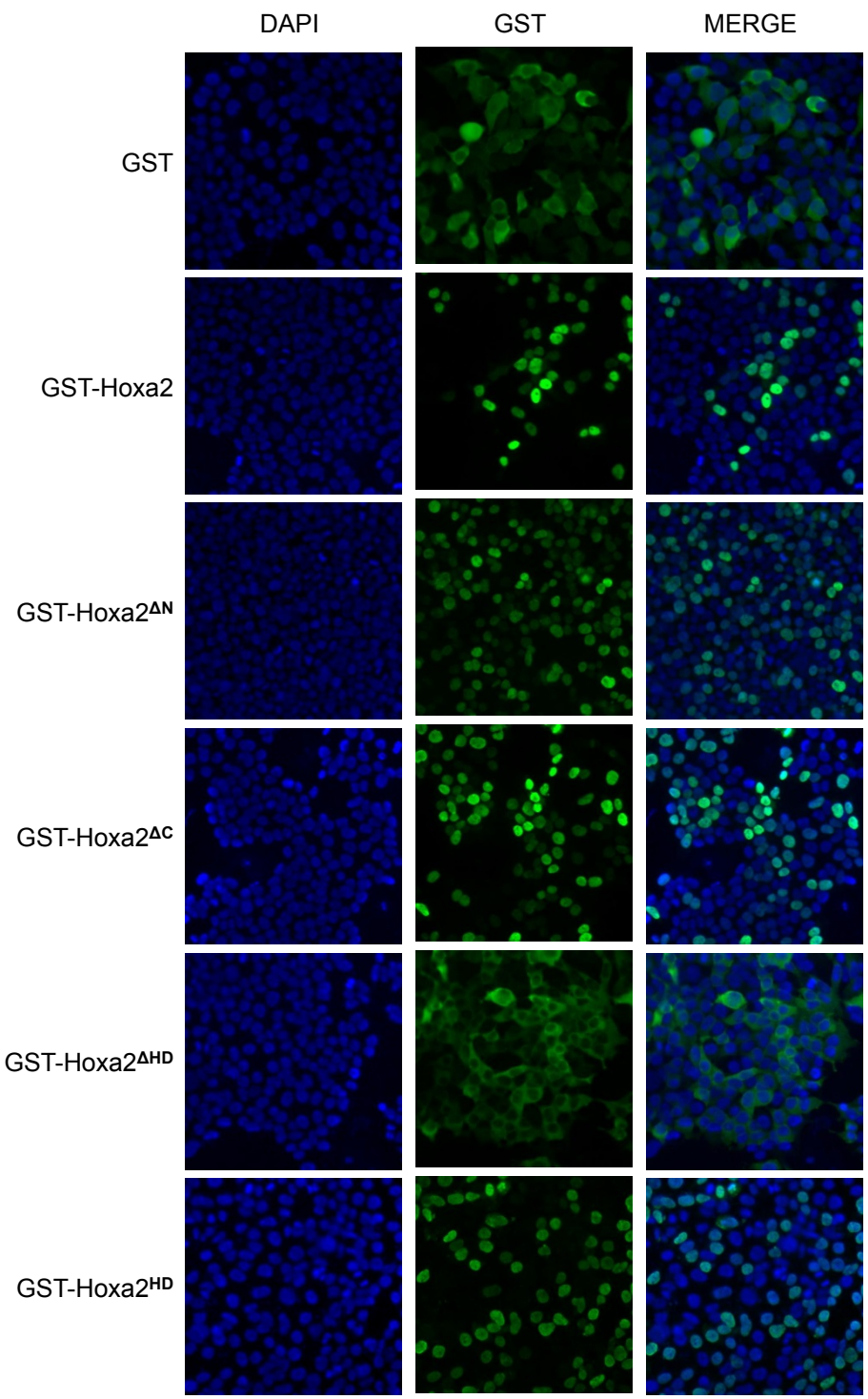
Supplemental Figure 1.



Supplemental Figure 2.



Supplemental Figure 3.



Supplemental Figure 4.