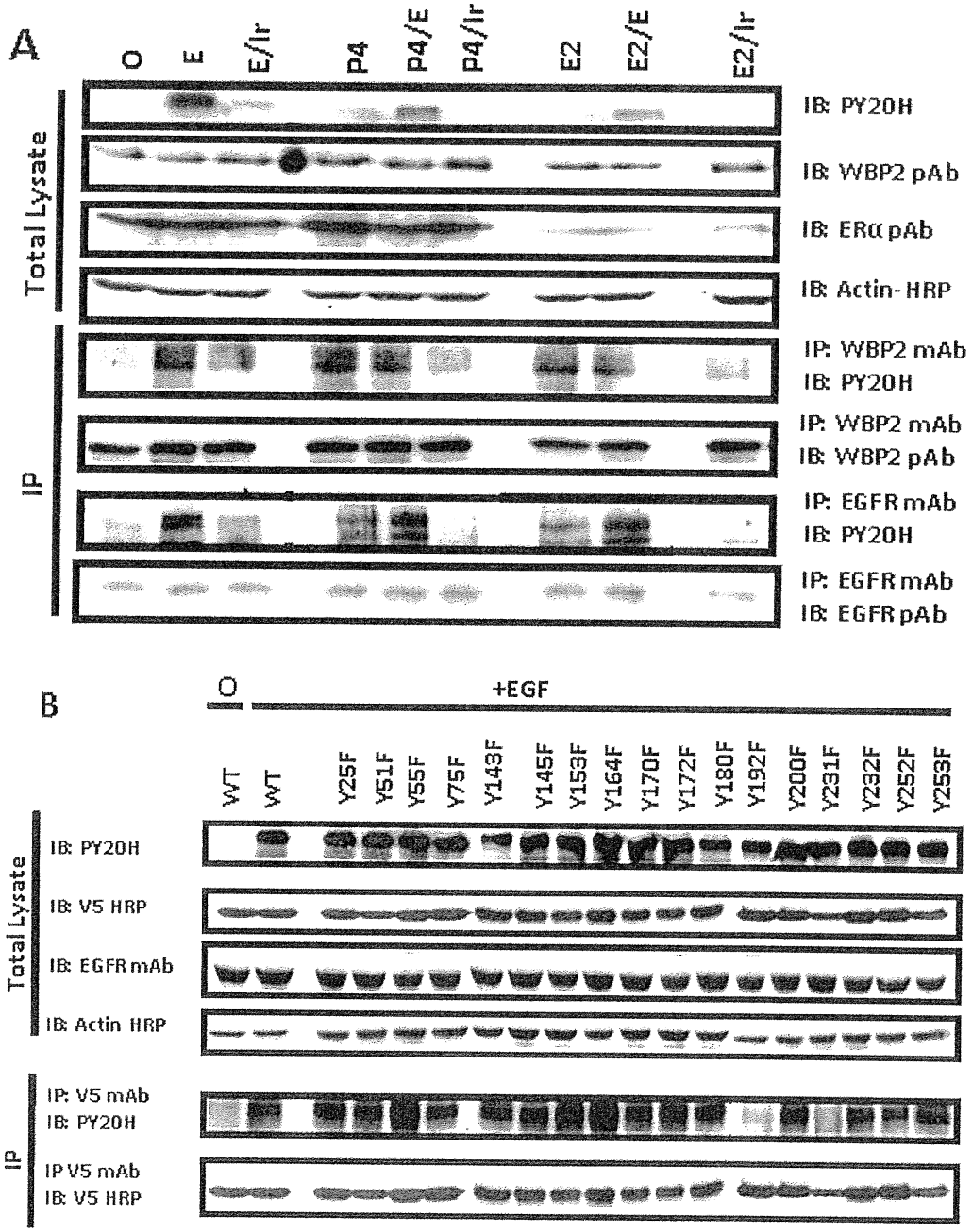

A
O
E
E/Ir
P4
P4/E
P4/Ir
E2
E2/E
E2/Ir
Total Lysate
IP
IB: PY20H
IB: WBP2 pAb
IB: ERα pAb
IB: Actin-HRP
IP: WBP2 mAb
IB: PY20H
IP: WBP2 mAb
IB: WBP2 pAb
IP: EGFR mAb
IB: PY20H
IP: EGFR mAb
IB: EGFR pAb
B
O
+EGF
WT
WT
Y25F
Y51F
Y55F
Y75F
Y143F
Y145F
Y153F
Y164F
Y170F
Y172F
Y180F
Y192F
Y200F
Y231F
Y232F
Y252F
Y253F
Total Lysate
IB: PY20H
IB: V5 HRP
IB: EGFR mAb
IB: Actin HRP
IP
IP: V5 mAb
IB: PY20H
IP V5 mAb
IB: V5 HRP

Figure 1

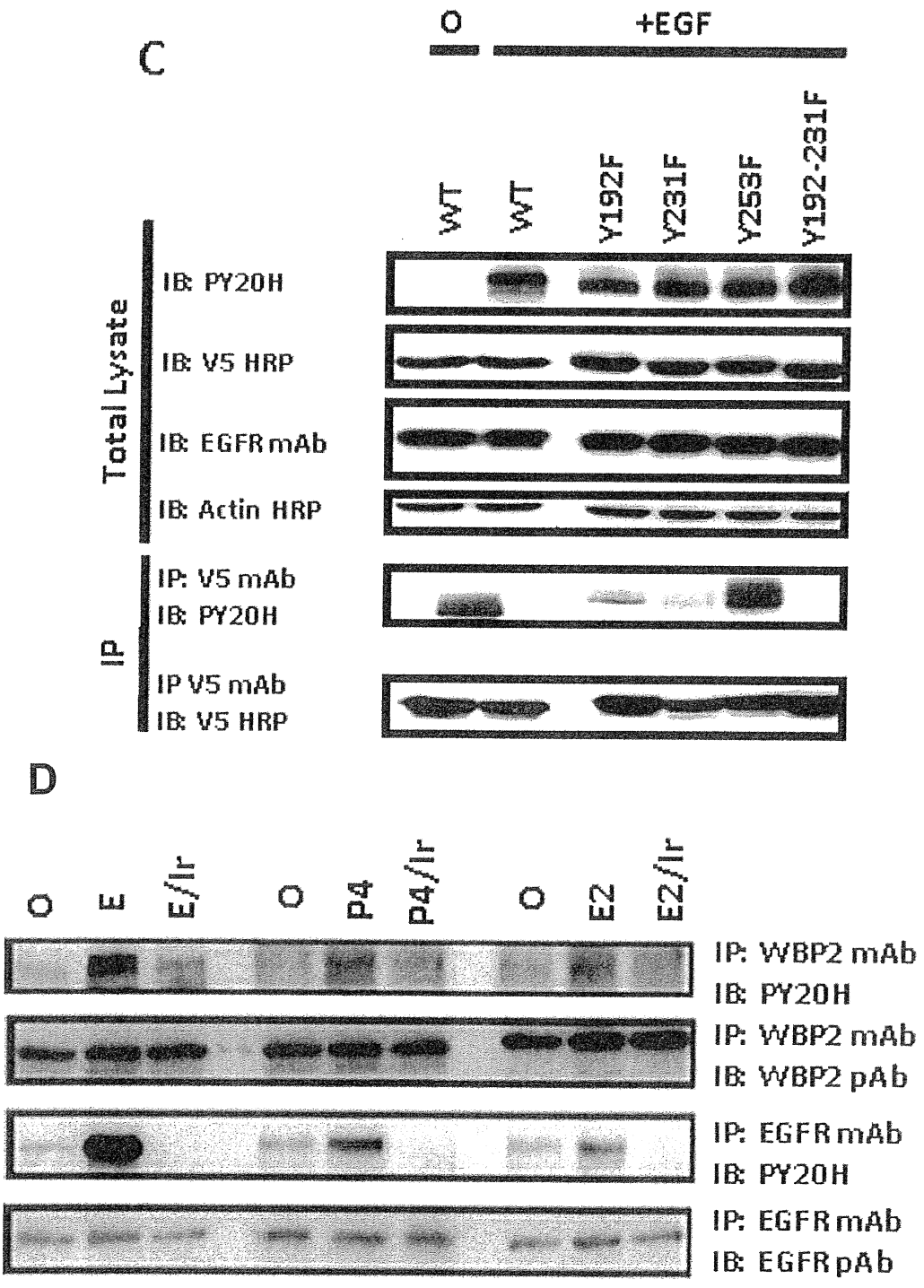


Figure 1 continued

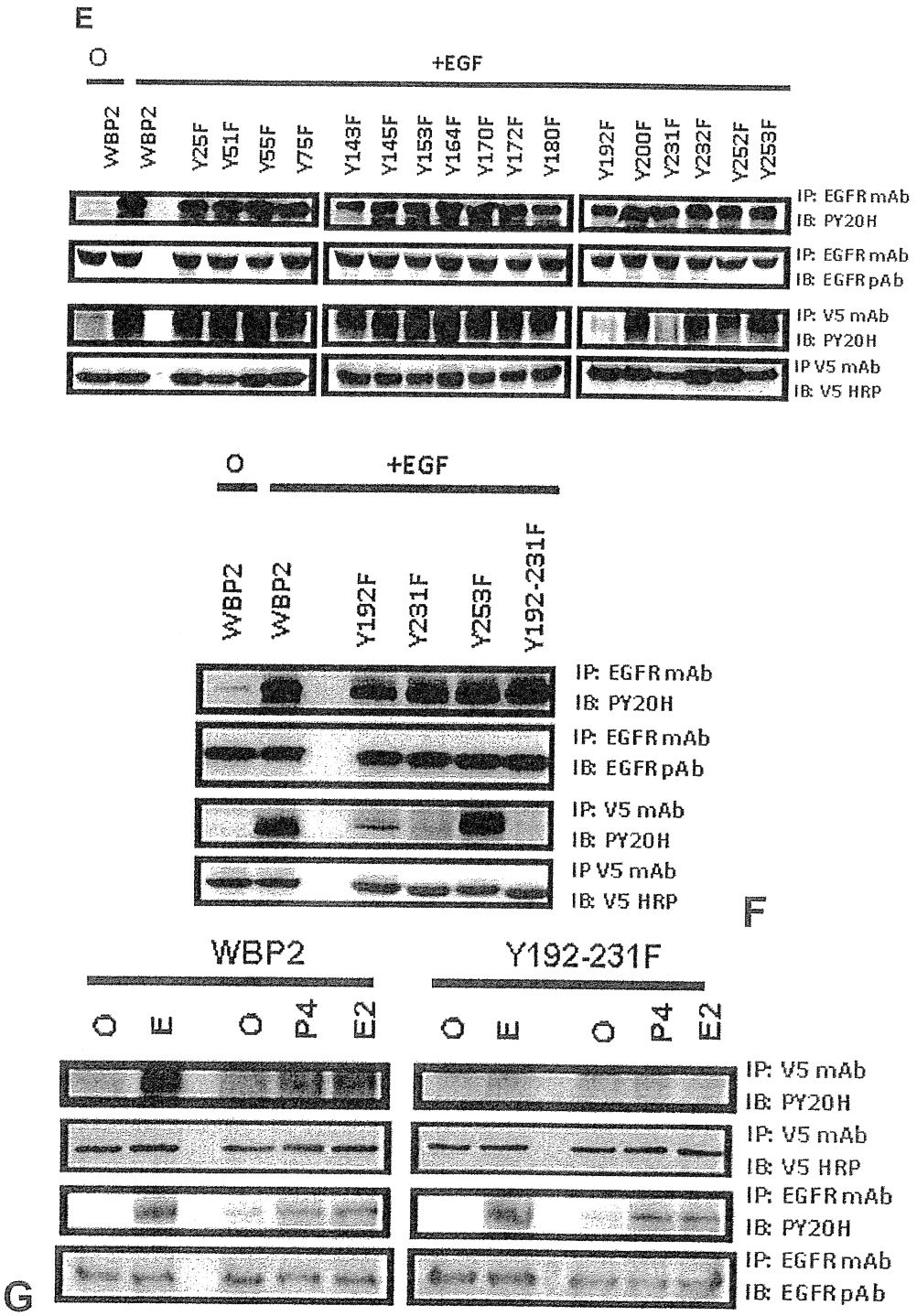


Figure 1 Continued

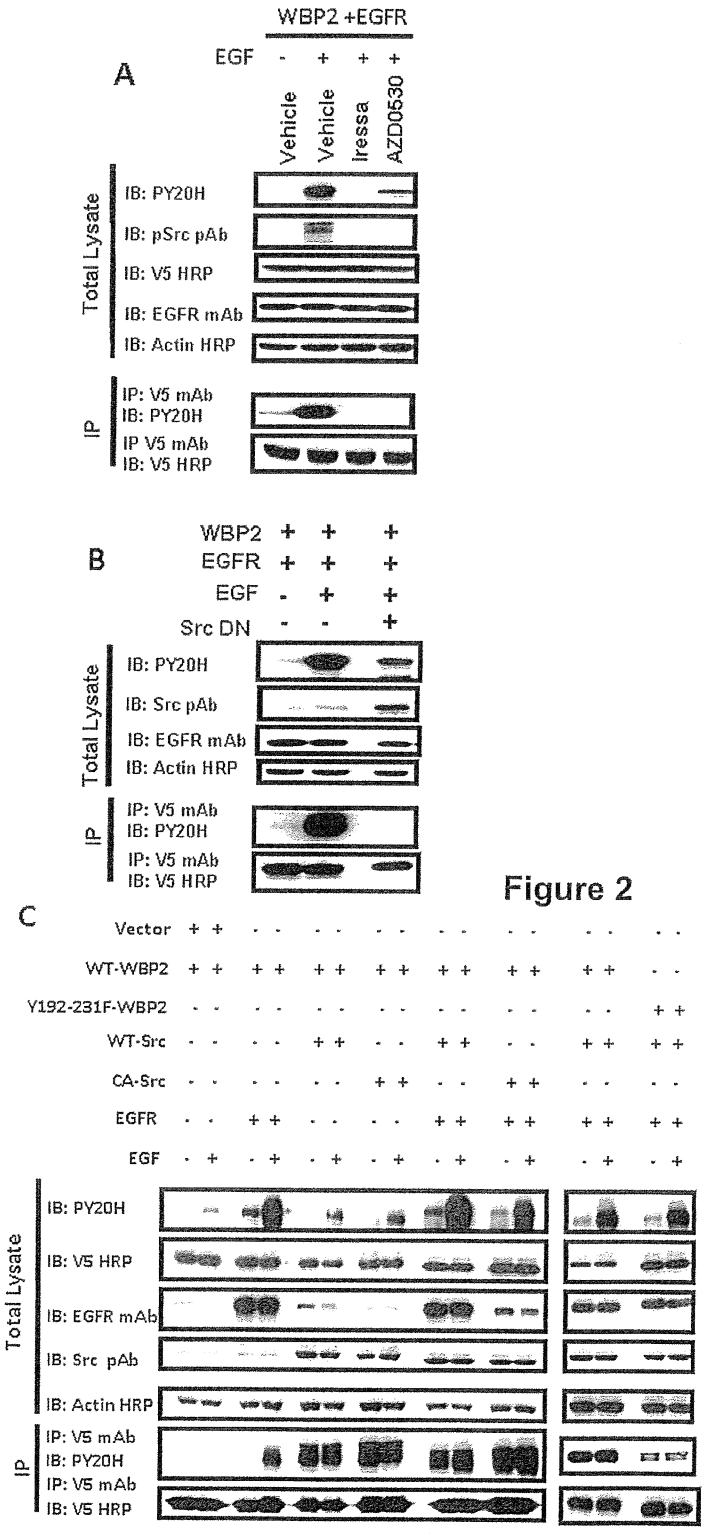
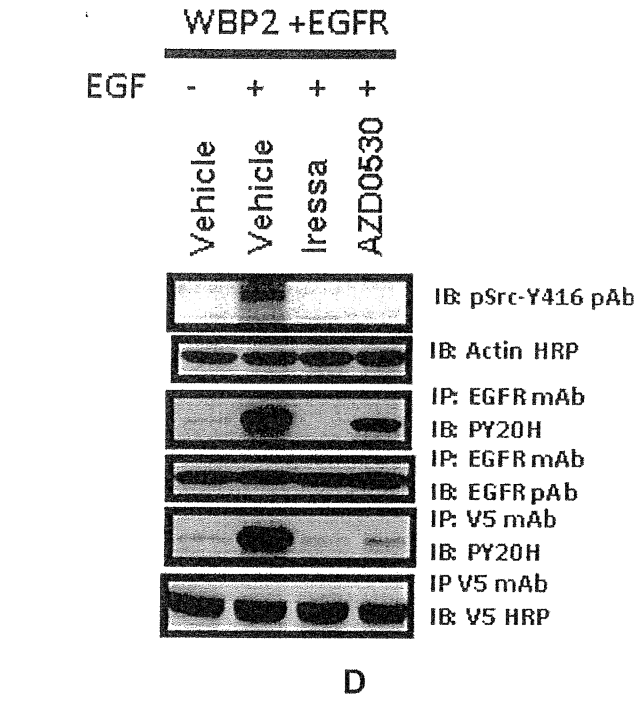
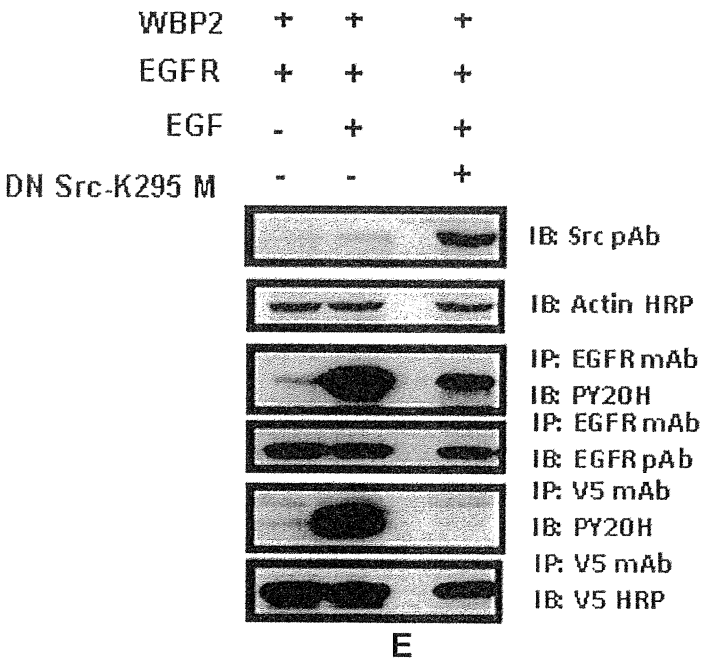

A
WBP2 +EGFR
EGF - + + +
Vehicle
Vehicle
Iressa
AZD0530
Total Lysate
IB: PY20H
IB: pSrc pAb
IB: V5 HRP
IB: EGFR mAb
IB: Actin HRP
IP
IP: V5 mAb
IB: PY20H
IP V5 mAb
IB: V5 HRP
B
WBP2 + + +
EGFR + + +
EGF - + +
Src DN - - +
Total Lysate
IB: PY20H
IB: Src pAb
IB: EGFR mAb
IB: Actin HRP
IP
IP: V5 mAb
IB: PY20H
IP: V5 mAb
IB: V5 HRP
C
Vector + + - - - - - - - - - - - -
WT-WBP2 + + + + + + + + + + + + + + - -
Y192-231F-WBP2 - - - - - - - - - - - - - - + +
WT-Src - - - - + + - - + + - - + + + +
CA-Src - - - - - - + + - - + + - - - -
EGFR - - + + - - - - + + + + + + + +
EGF - + - + - + - + - + - + - + - +
Total Lysate
IB: PY20H
IB: V5 HRP
IB: EGFR mAb
IB: Src pAb
IB: Actin HRP
IP
IP: V5 mAb
IB: PY20H
IP: V5 mAb
IB: V5 HRP

Figure 2

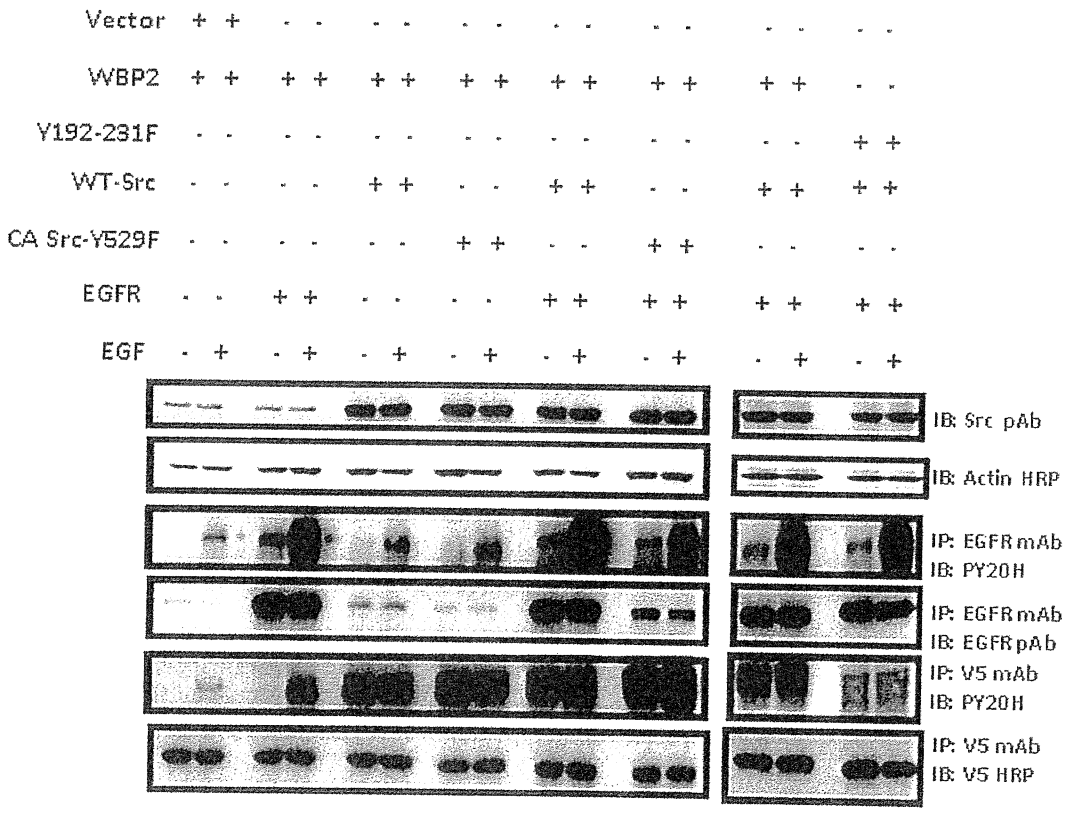


D



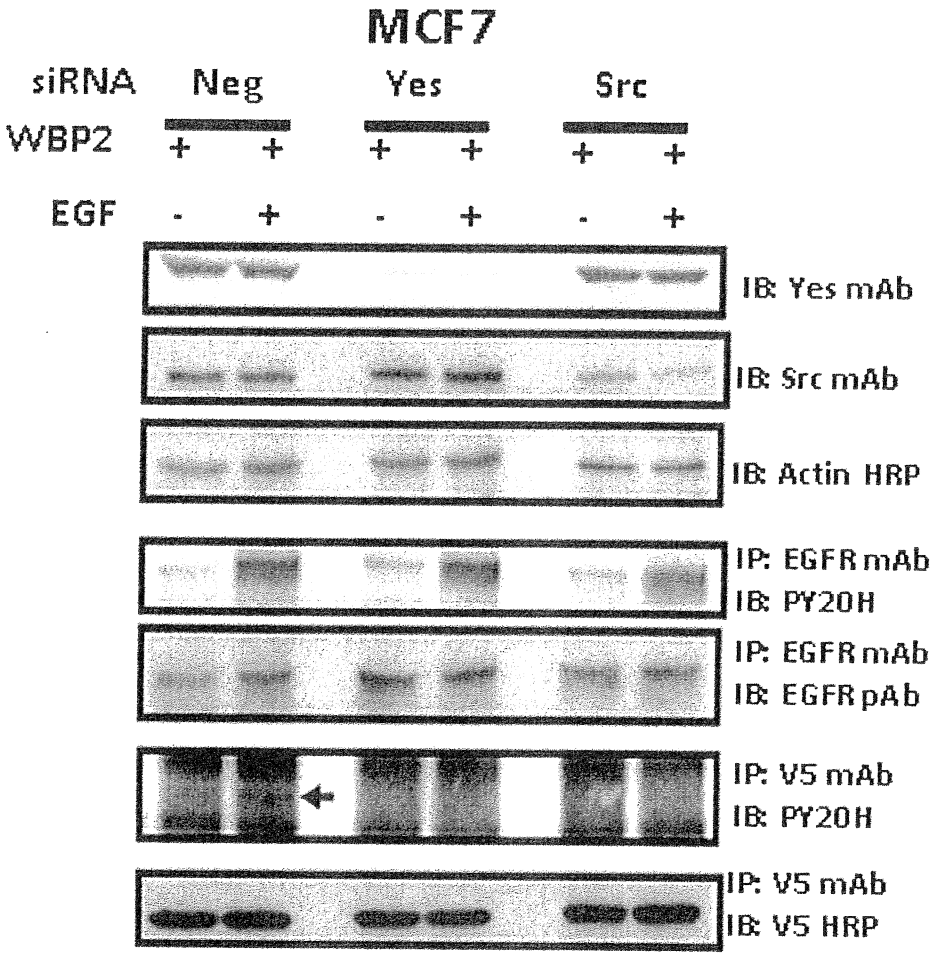
E

Figure 2 continued



F

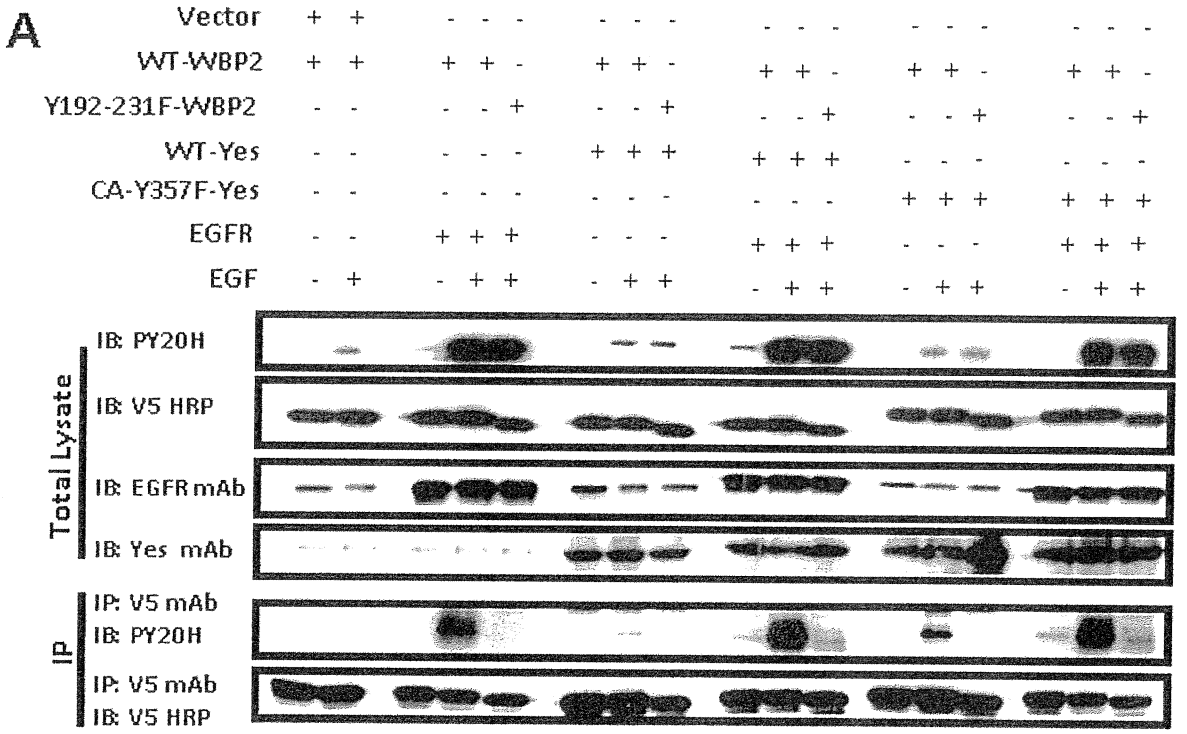
Figure 2 continued



G

Figure 2 Continued

Figure 3


A
Vector
WT-WBP2
Y192-231F-WBP2
WT-Yes
CA-Y357F-Yes
EGFR
EGF
Total Lysate
IB: PY20H
IB: V5 HRP
IB: EGFR mAb
IB: Yes mAb
IP
IP: V5 mAb
IB: PY20H
IP: V5 mAb
IB: V5 HRP

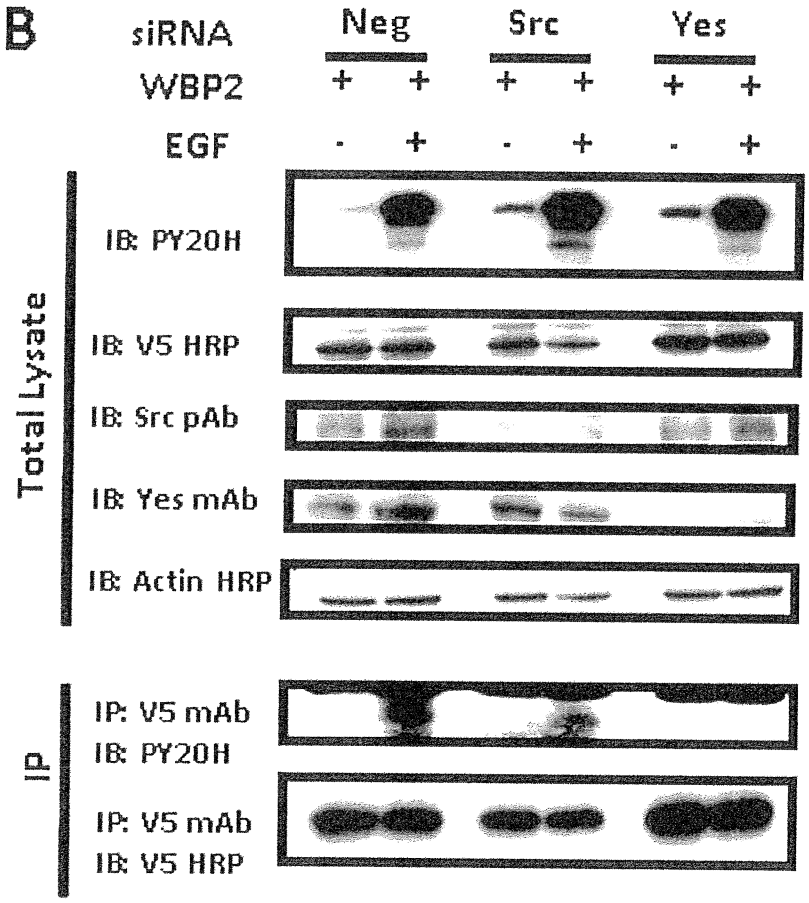


Figure 3 continued

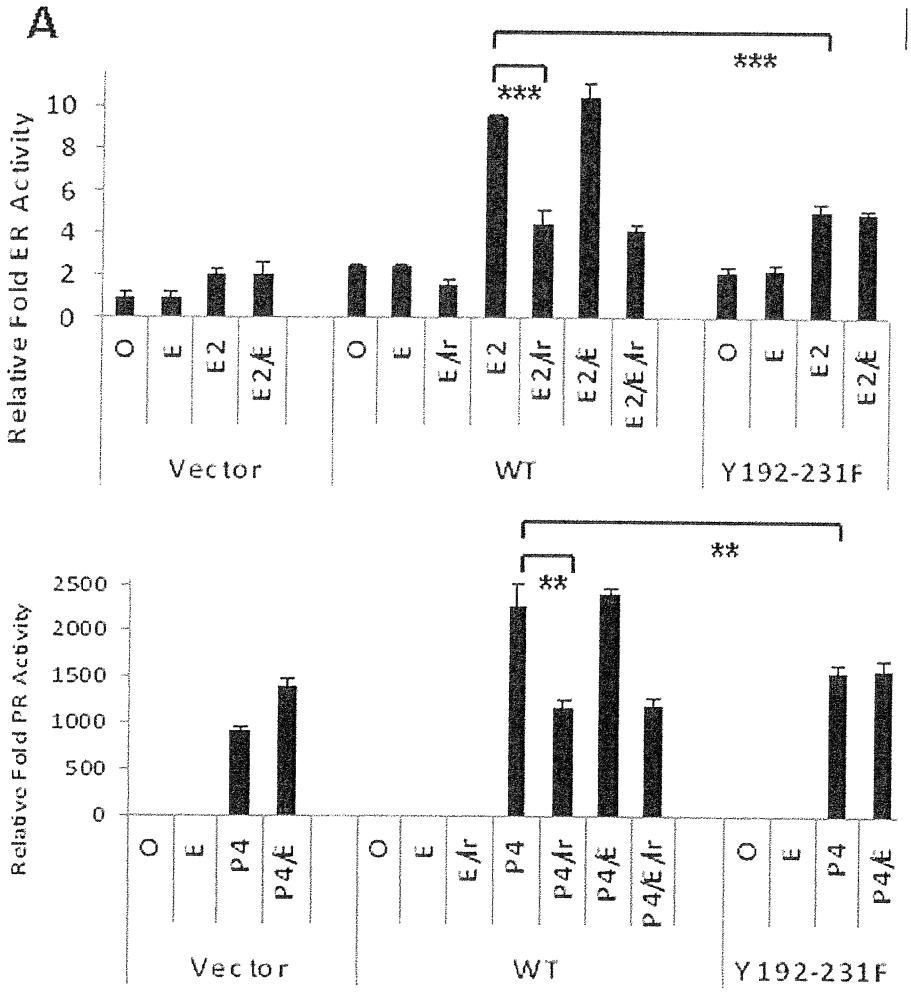

A
Relative Fold ER Activity
10
8
6
4
2
0
***
***
O
E
E2
E2/Æ
E/Ar
E2/Ar
E2/Æ/Ar
Vector
WT
Y192-231F
Relative Fold PR Activity
2500
2000
1500
1000
500
0
**
**
P4
P4/Æ
P4/Ar
P4/Æ/Ar

Figure 4

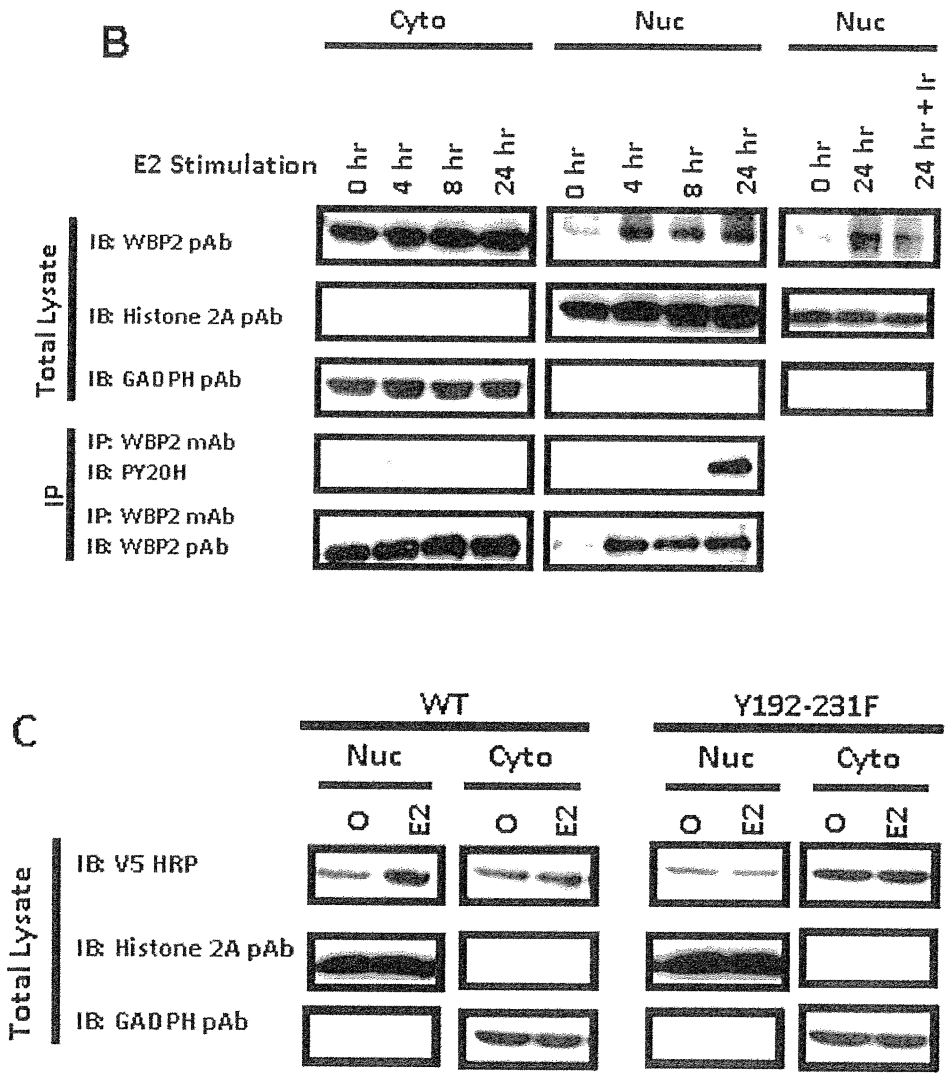
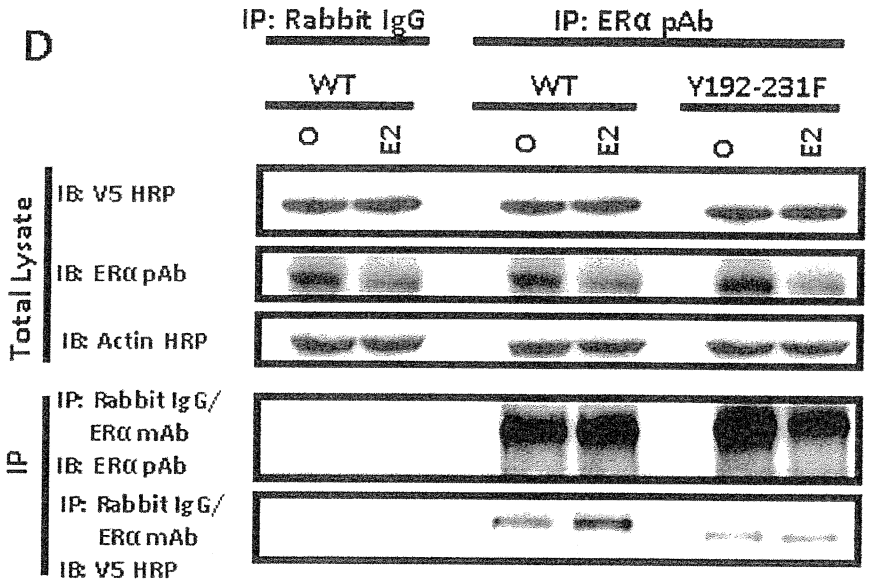


Figure 4 Continued



E

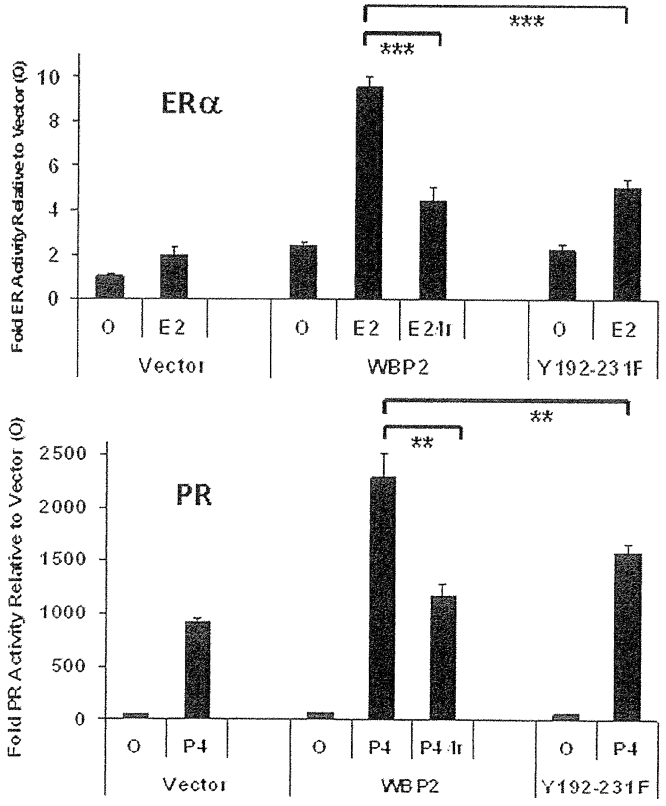
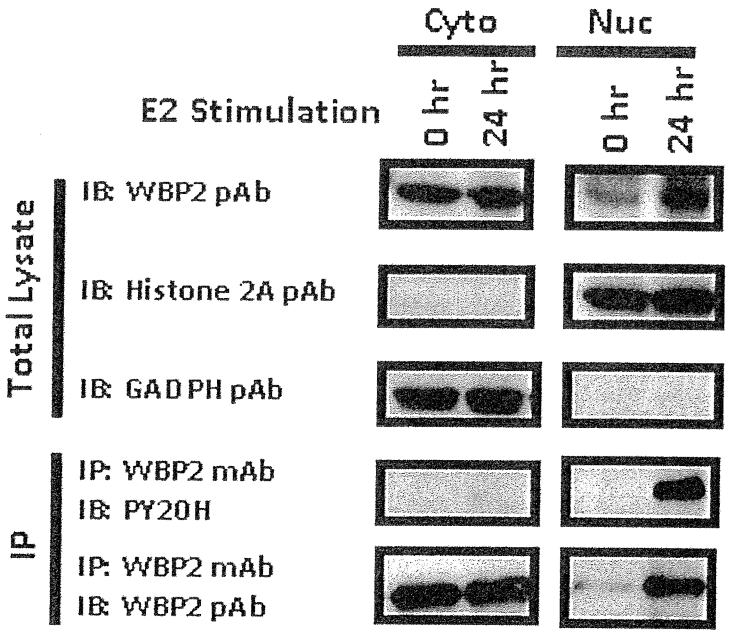


Figure 4 continued

F



G

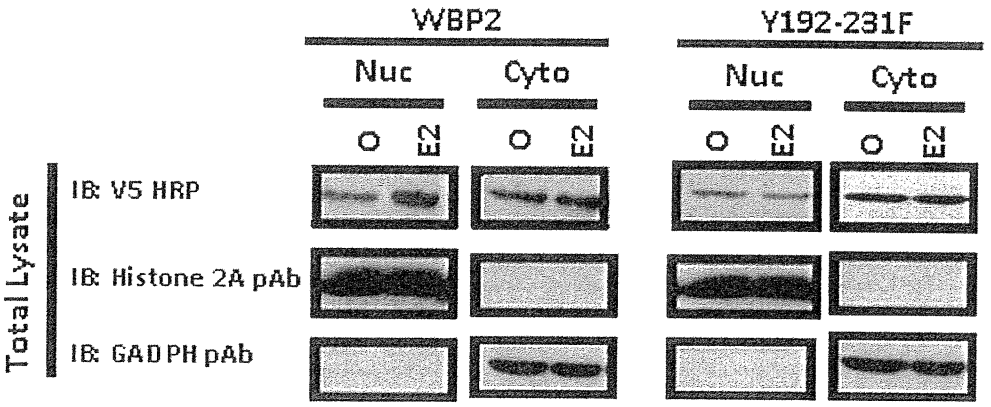


Figure 4 continued

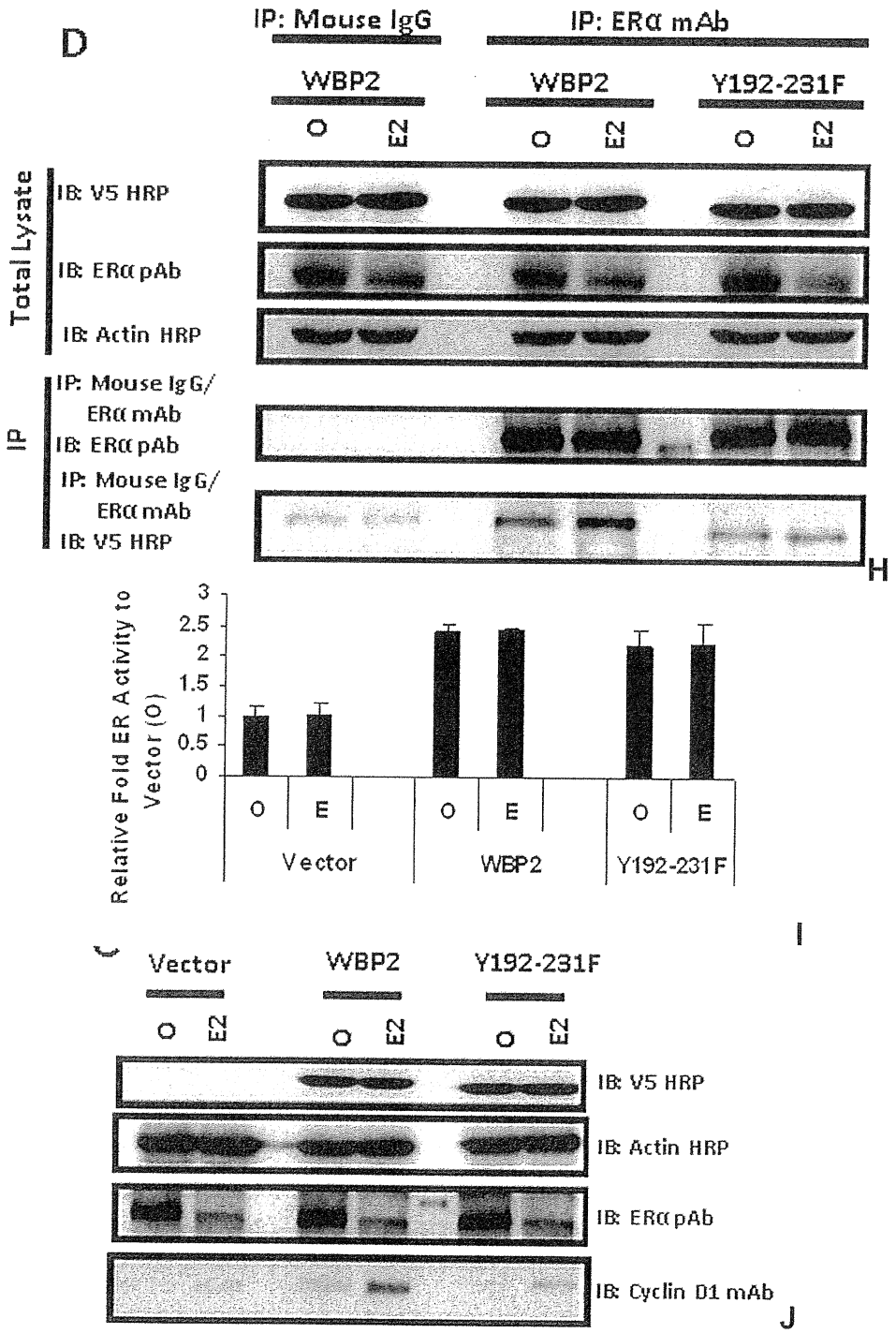


Figure 4 Continued

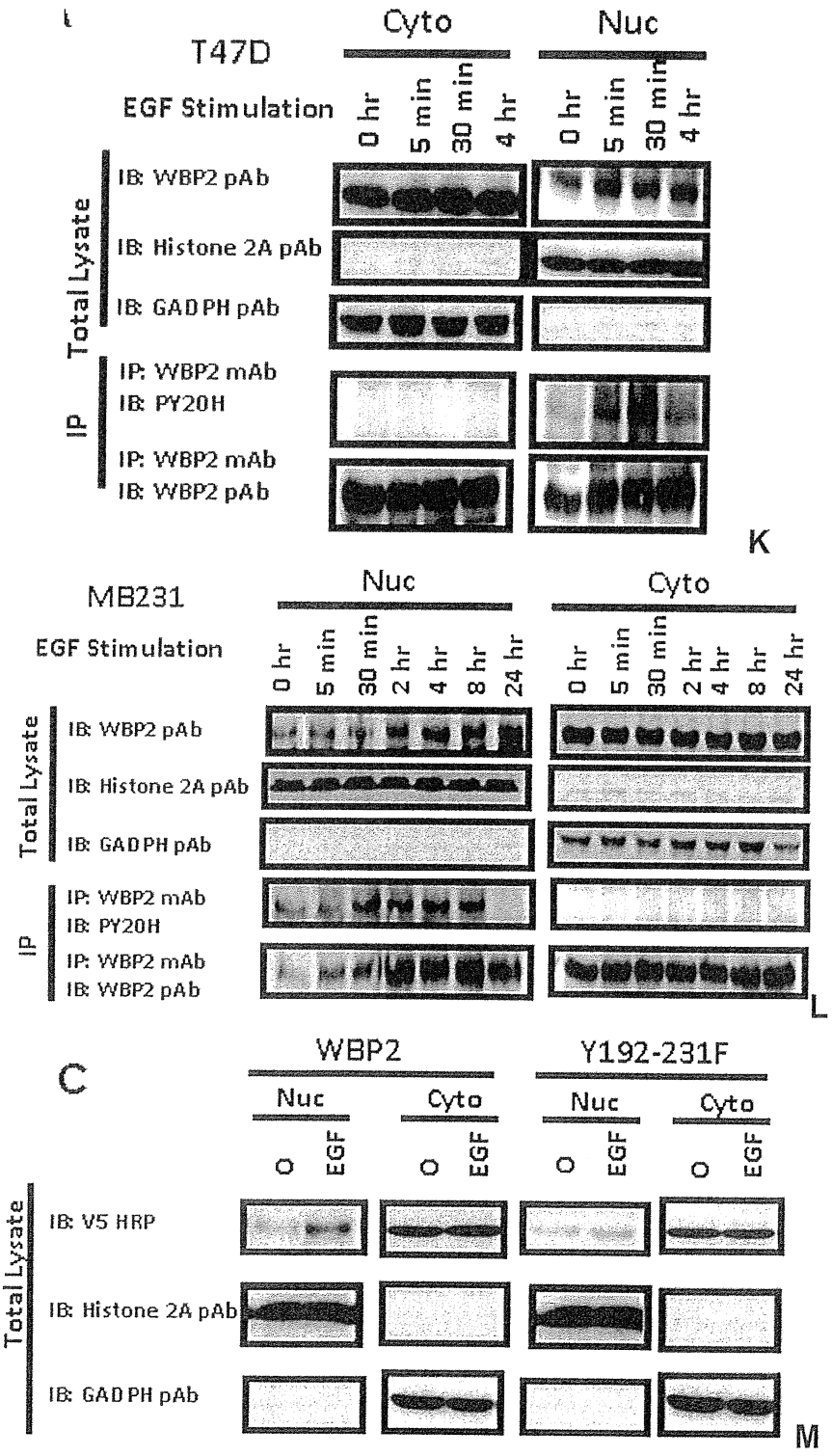
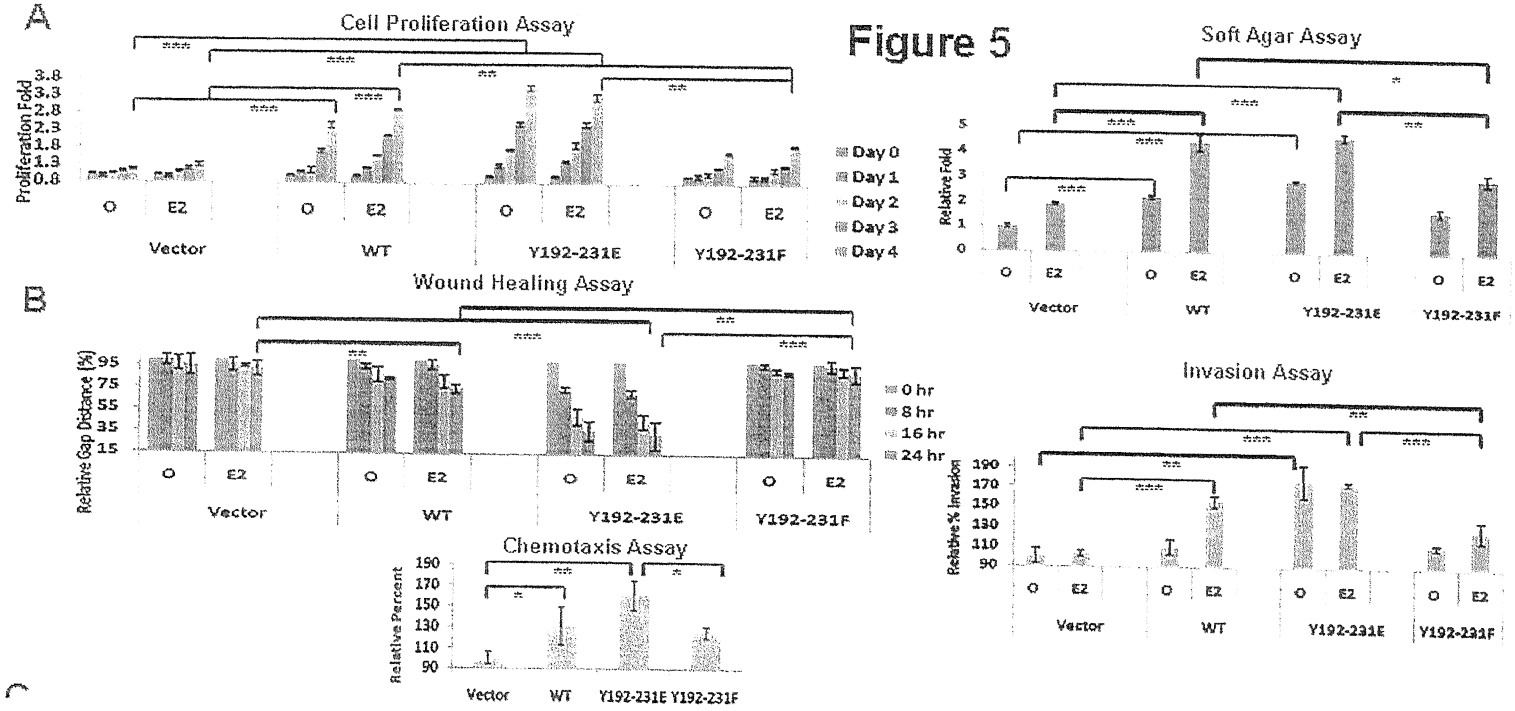
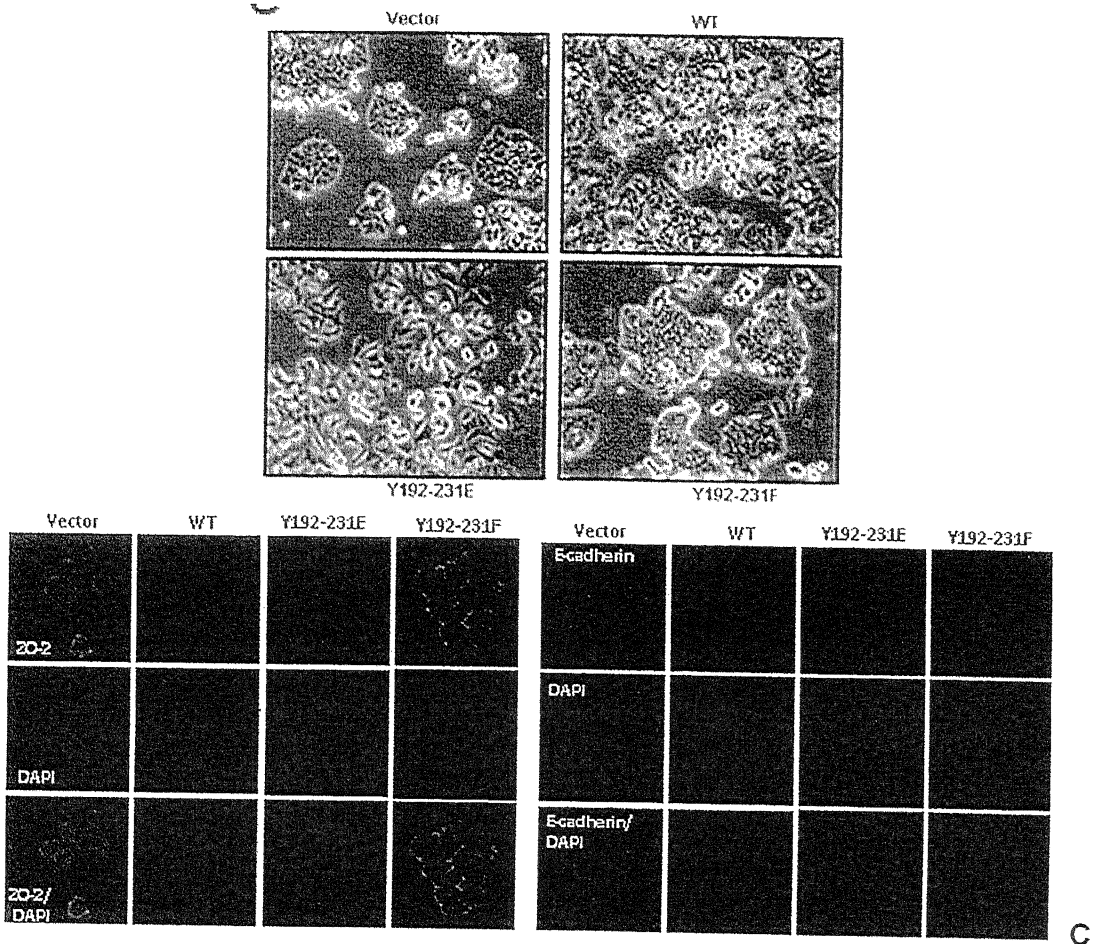


Figure 4 Continued

Figure 5


A
Cell Proliferation Assay
Proliferation Fold
3.8
3.3
2.8
2.3
1.8
1.3
0.8
O
E2
Vector
WT
Y192-231E
Y192-231F
Day 0
Day 1
Day 2
Day 3
Day 4
Soft Agar Assay
Relative Fold
B
Wound Healing Assay
Relative Gap Distance (%)
95
75
55
35
15
0 hr
8 hr
16 hr
24 hr
Invasion Assay
Relative % Invasion
190
170
150
130
110
90
Chemotaxis Assay
Relative Percent



C

Figure 5 continued

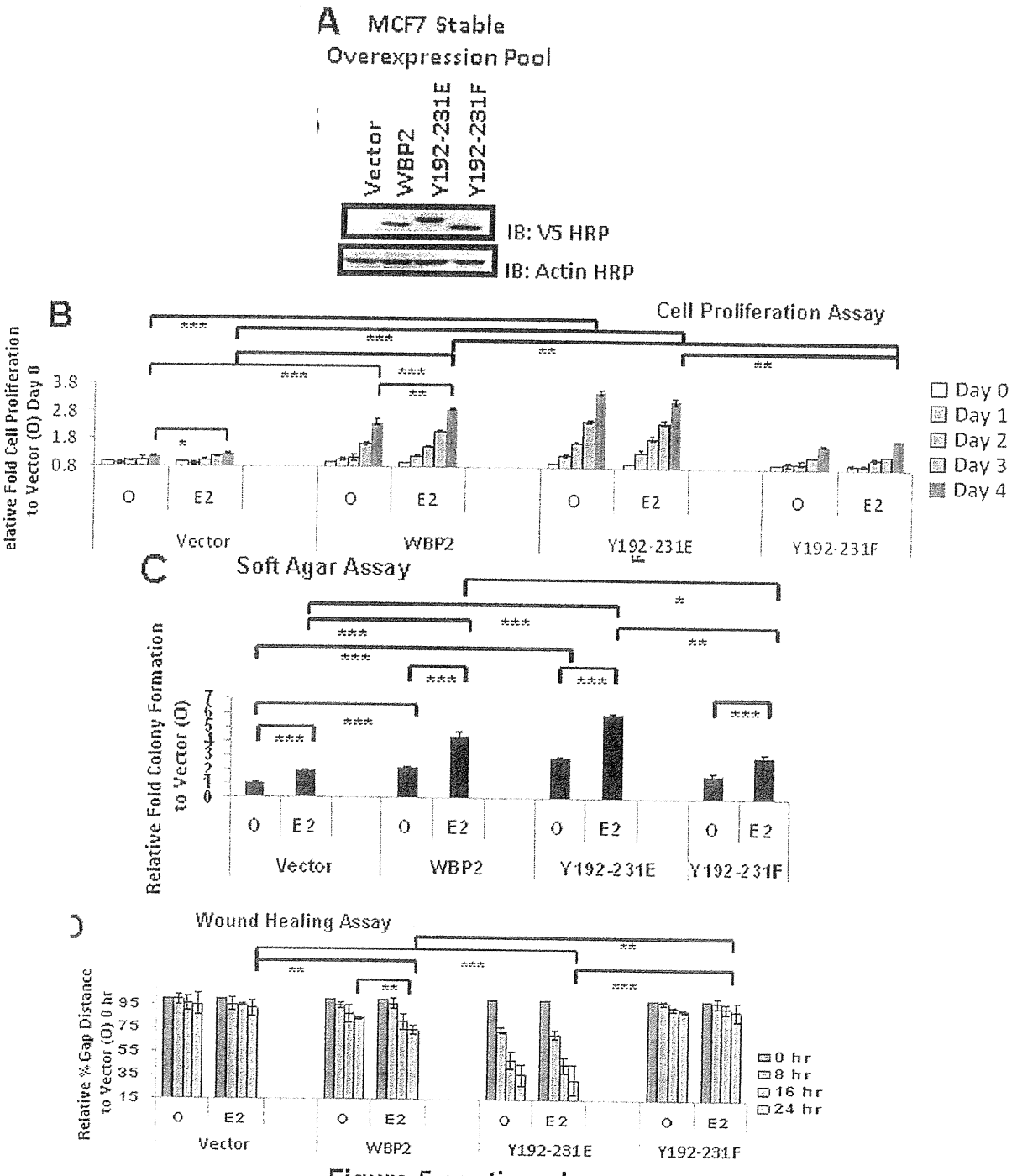


Figure 5 continued

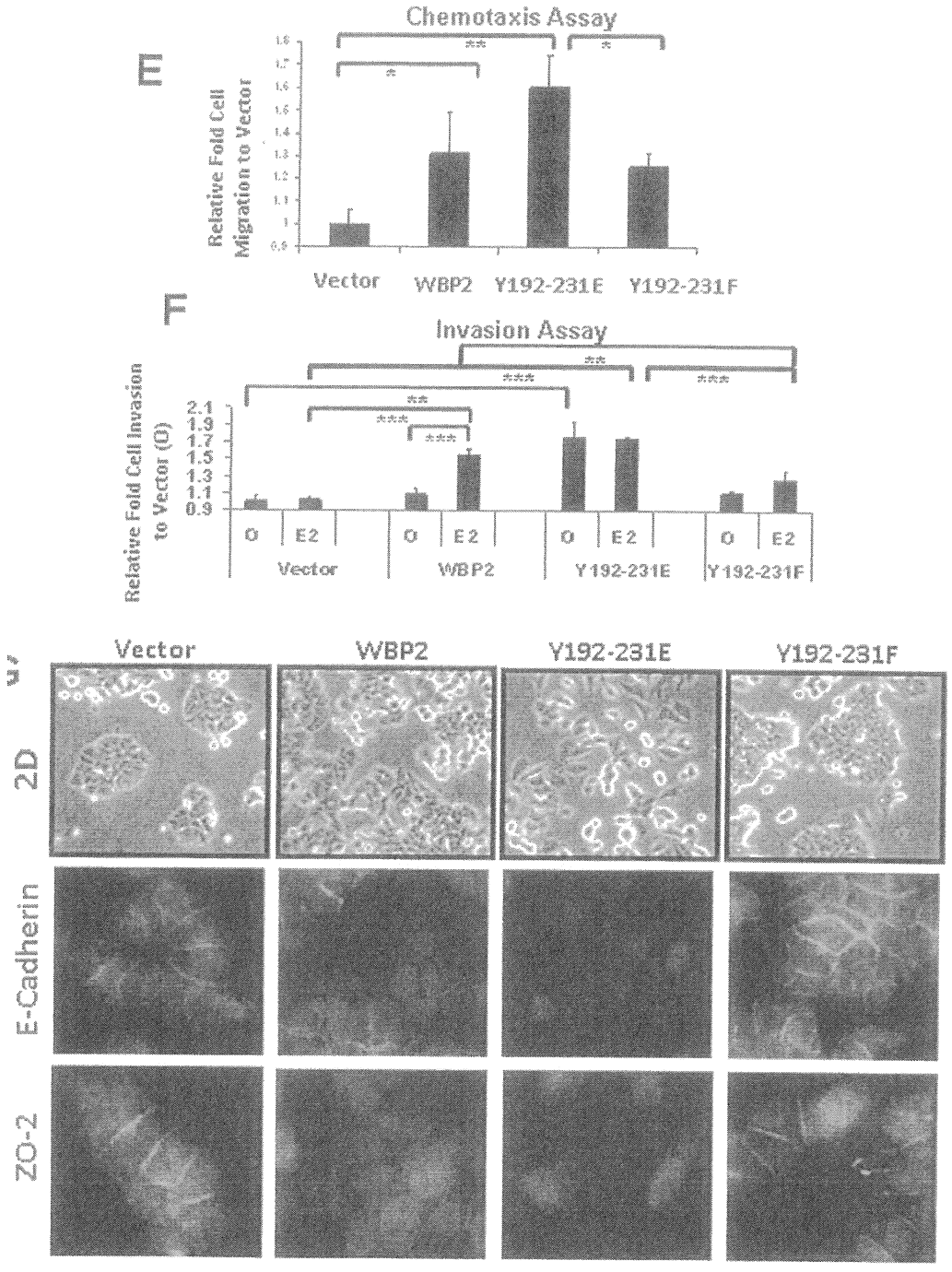
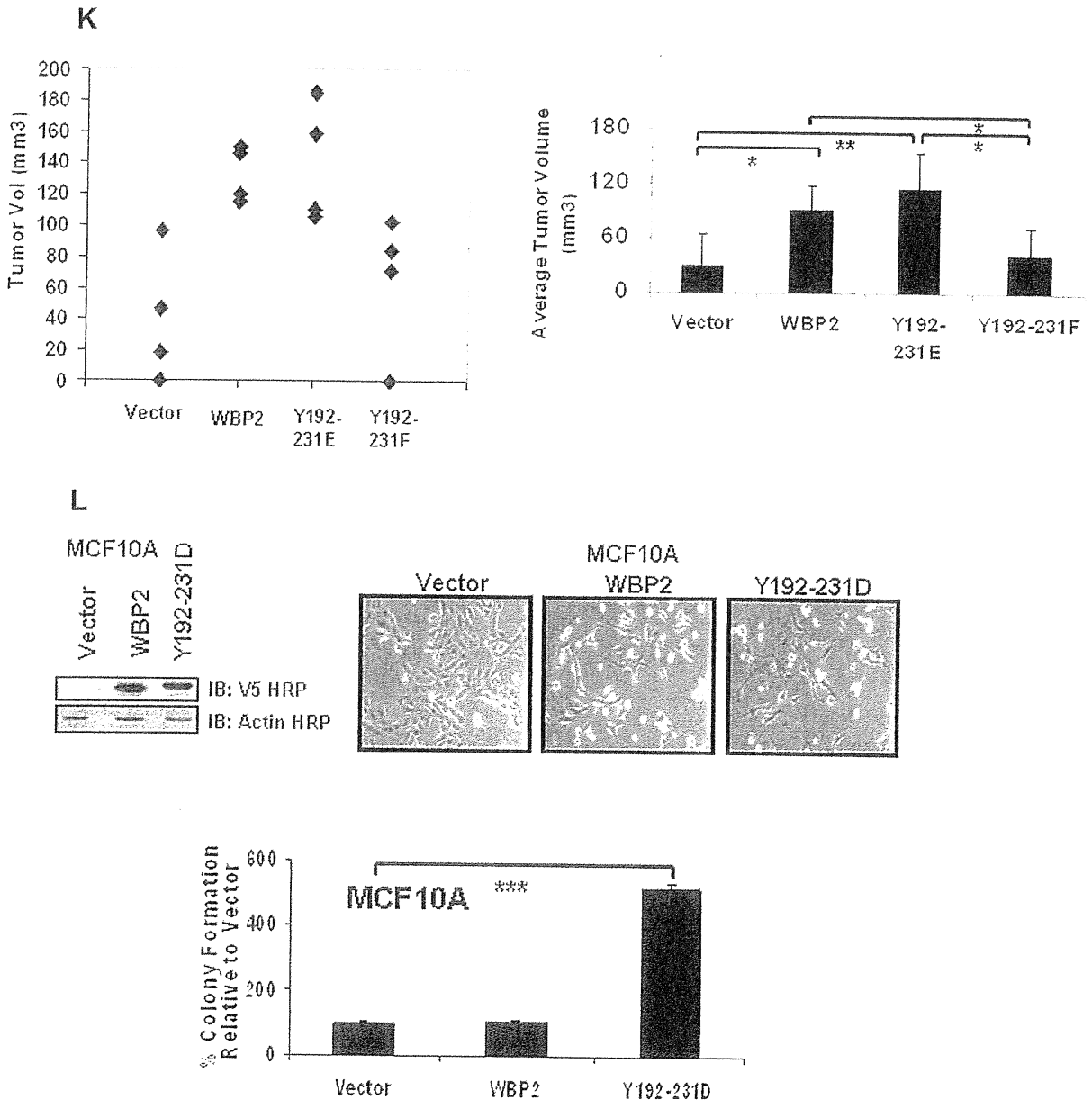


Figure 5 continued

Figure 5 (Continued)



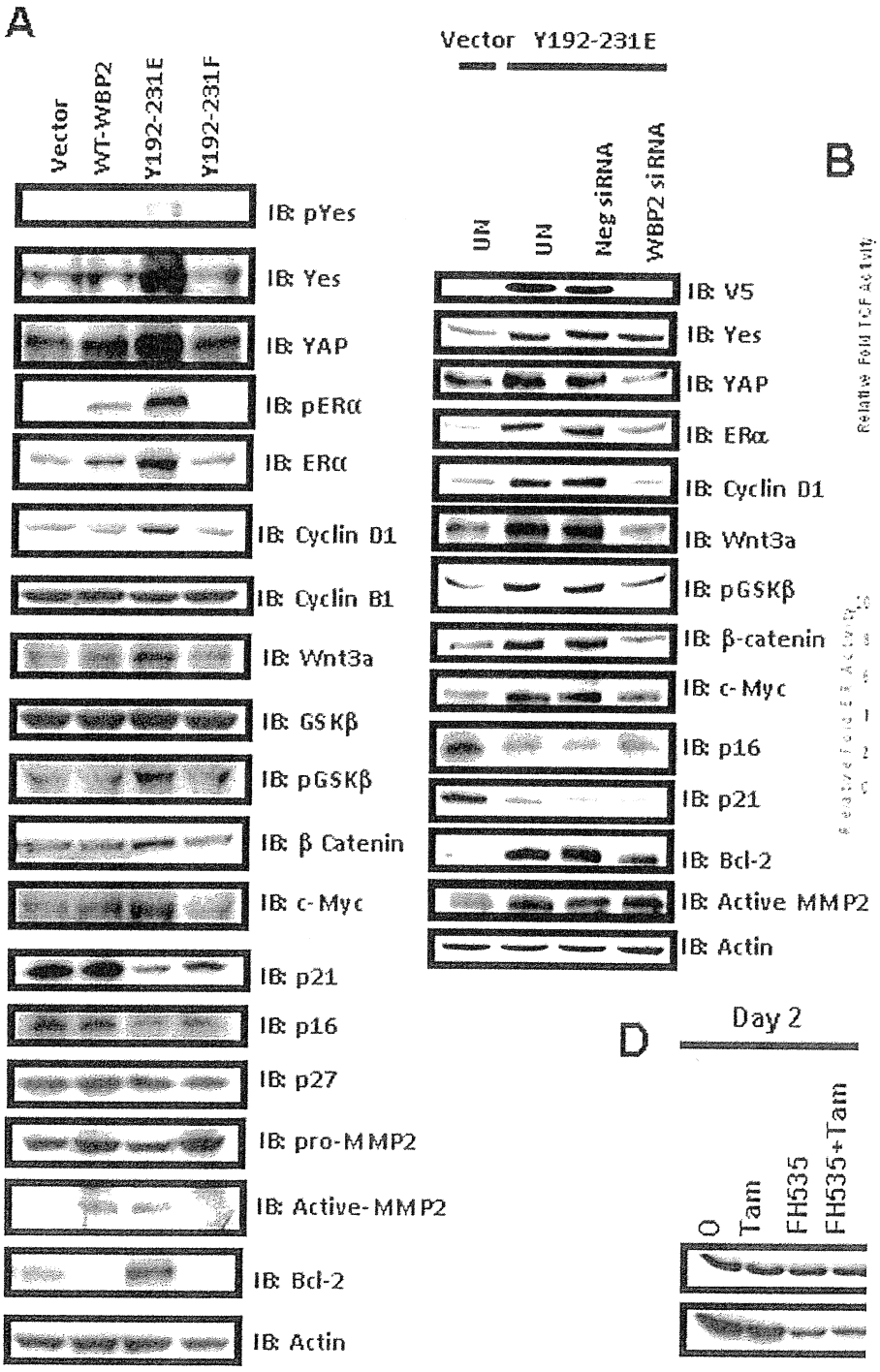
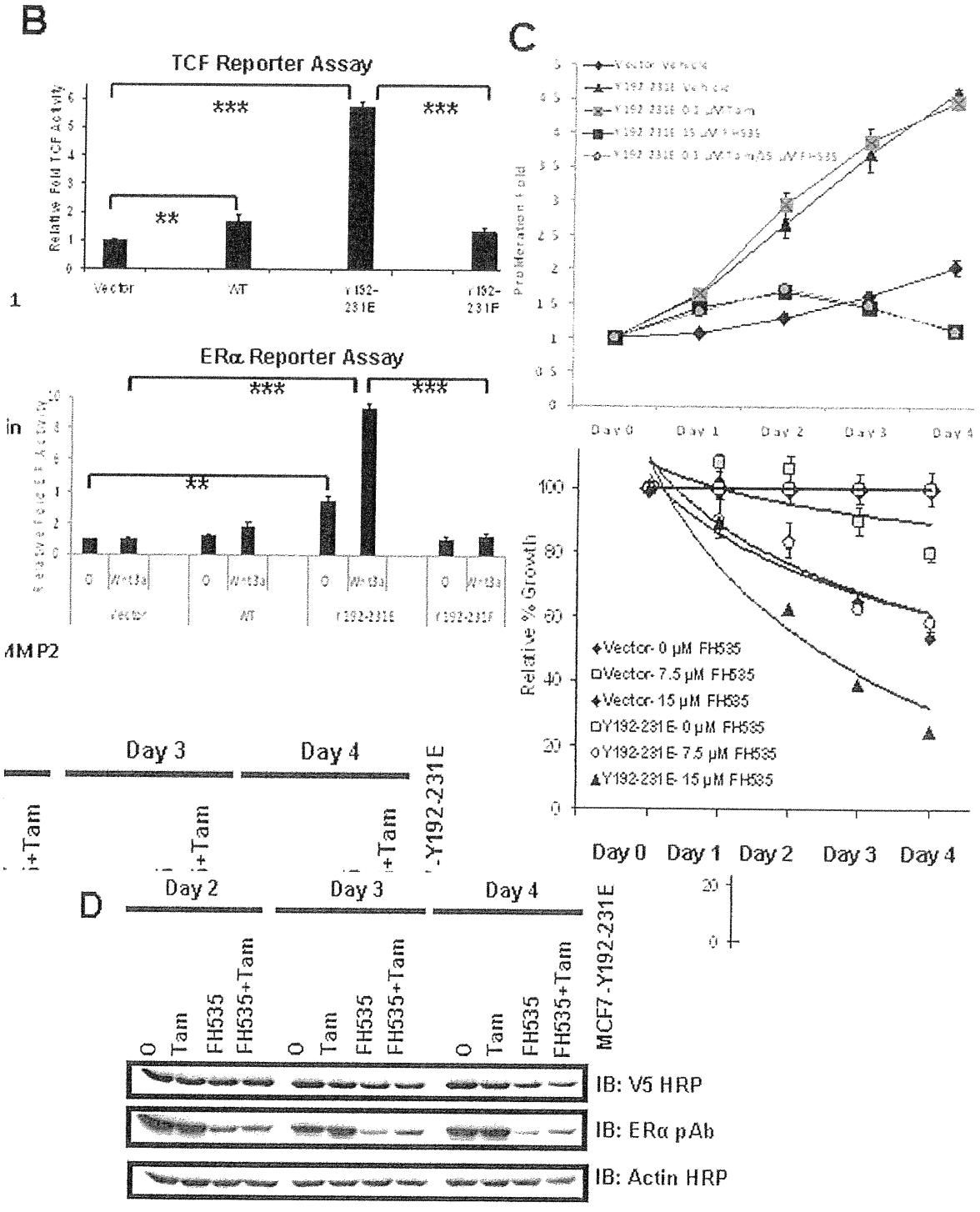

A
Vector
WT-WBP2
Y192-231E
Y192-231F
IB: pYes
IB: Yes
IB: YAP
IB: pERα
IB: ERα
IB: Cyclin D1
IB: Cyclin B1
IB: Wnt3a
IB: GSKβ
IB: pGSKβ
IB: β Catenin
IB: c-Myc
IB: p21
IB: p16
IB: p27
IB: pro-MMP2
IB: Active-MMP2
IB: Bcl-2
IB: Actin
Vector Y192-231E
UN
UN
Neg siRNA
WBP2 siRNA
IB: V5
IB: Yes
IB: YAP
IB: ERα
IB: Cyclin D1
IB: Wnt3a
IB: pGSKβ
IB: β-catenin
IB: c-Myc
IB: p16
IB: p21
IB: Bcl-2
IB: Active MMP2
IB: Actin
B
Relative Fold TCF Activity
D
Day 2
0
Tam
FH535
FH535+Tam

Figure 6 Continued



```
        10         20         30         40         50         60
MALNKNHSEG GGVIVNNTES ILMSYDHVEL TFNDMKNVPE AFKGTKKGTV YLTPYRVIFL

        70         80         90        100        110        120
SKGKDAMQSF MMPFYLMKDC EIKQPVFGAN YIKGTVKAEA GGGWEGSASY KLTFTAGGAI

       130        140        150        160        170        180
EFGQRMLQVA SQASRGEVPS GAYGYSYMPS GAYVYPPPVA NGMYPCPPGY PYPPPPPEFY

       190        200        210        220        230        240
PGPPMMDGAM GYVQPPPPPY PGPMEPPVSG PDVPSTPAAE AKAAEAAASA YYNPGNPHNV

       250        260
YMPTSQPPPP PYYPPEDKKT Q
```

Figure 7

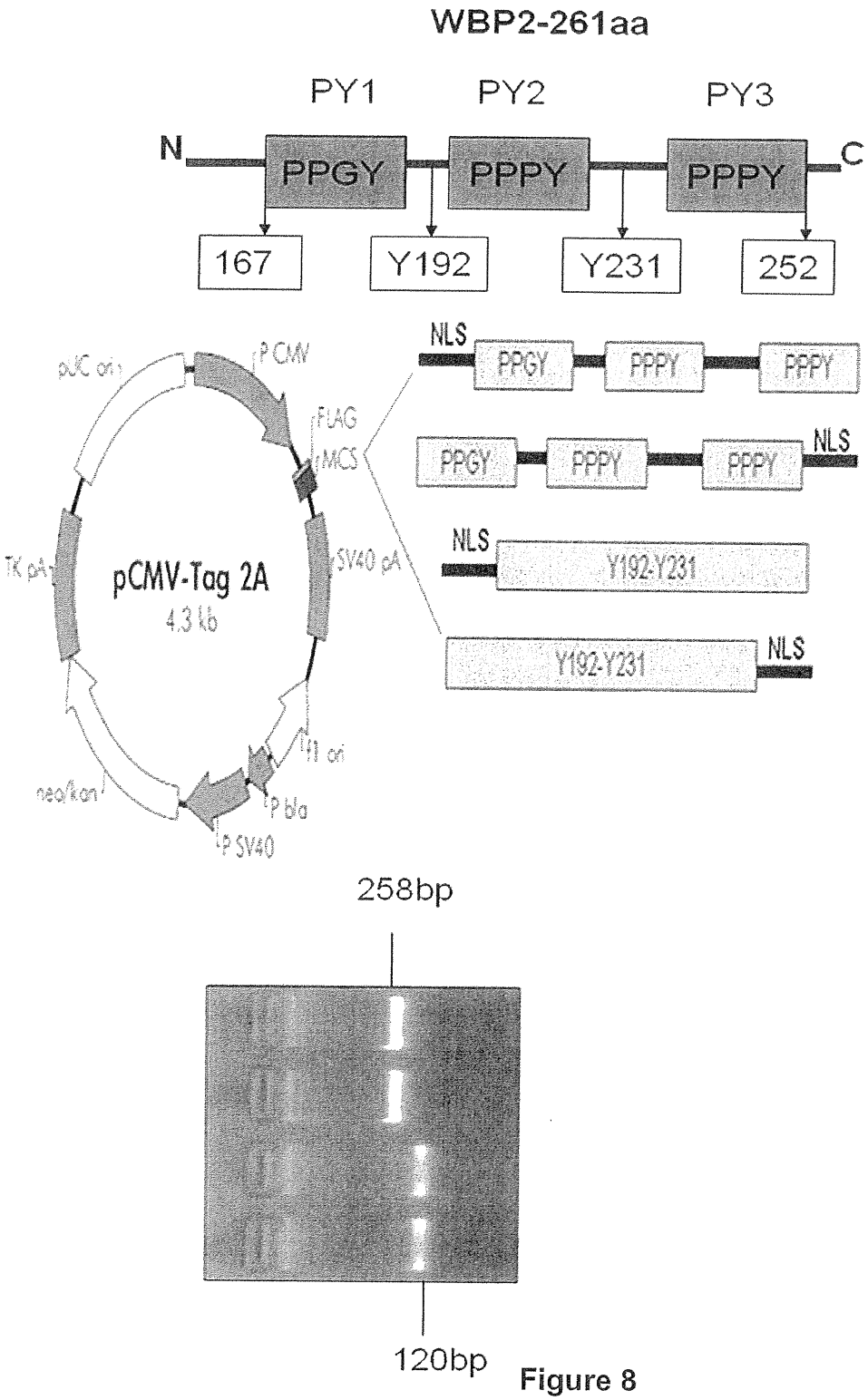

WBP2-261aa
PY1
PY2
PY3
N
PPGY
PPPY
PPPY
C
167
Y192
Y231
252
pUC ori
P CMV
FLAG
MCS
SV40 pA
TK pA
pCMV-Tag 2A
4.3 Kb
f1 ori
neo/kan
P bla
P SV40
NLS
PPGY
PPPY
PPPY
PPGY
PPPY
PPPY
NLS
NLS
Y192-Y231
Y192-Y231
NLS
258bp
120bp

Figure 8

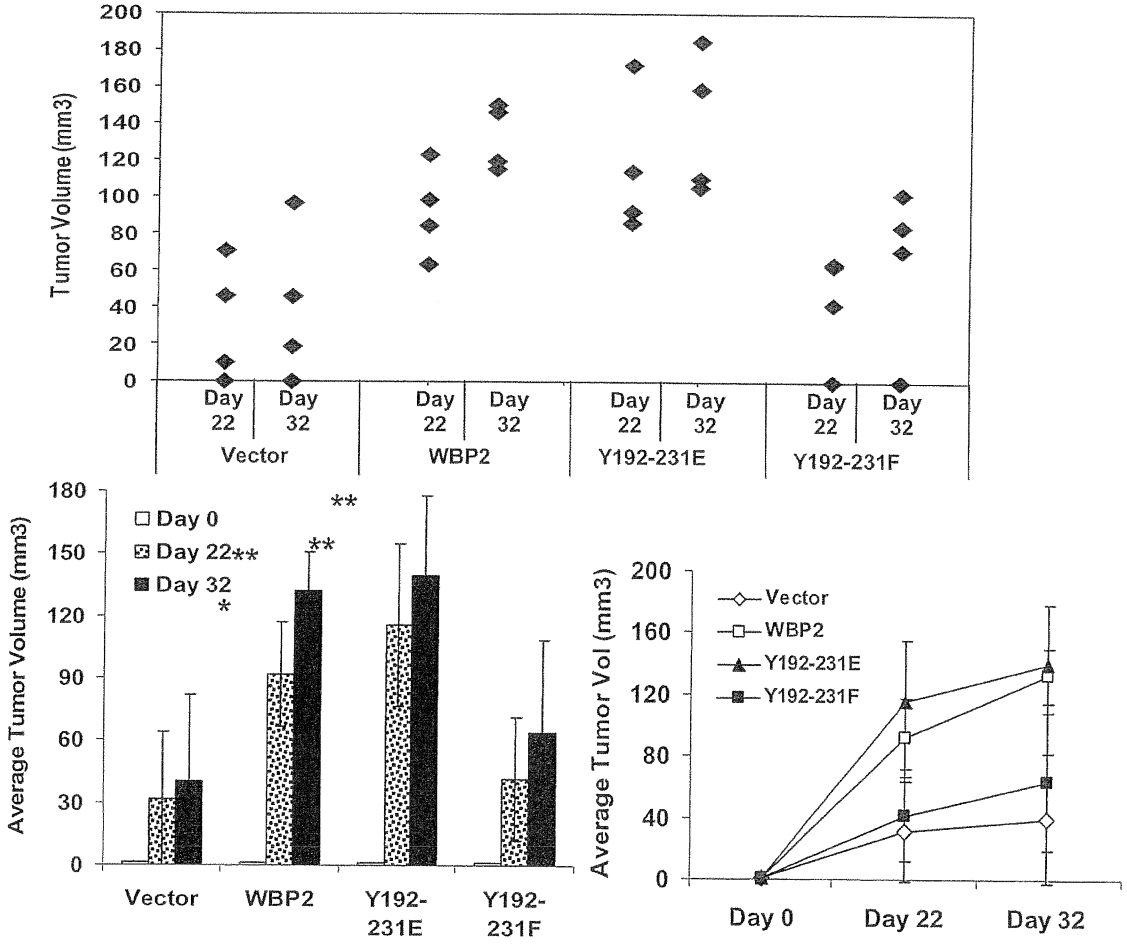

Tumor Volume (mm3)
200
180
160
140
120
100
80
60
40
20
0
Day 22
Day 32
Vector
WBP2
Y192-231E
Y192-231F
Average Tumor Volume (mm3)
Day 0
Day 22**
Day 32
*
**
**
Vector
WBP2
Y192-231E
Y192-231F
Average Tumor Vol (mm3)
Day 0
Day 22
Day 32

Figure 9

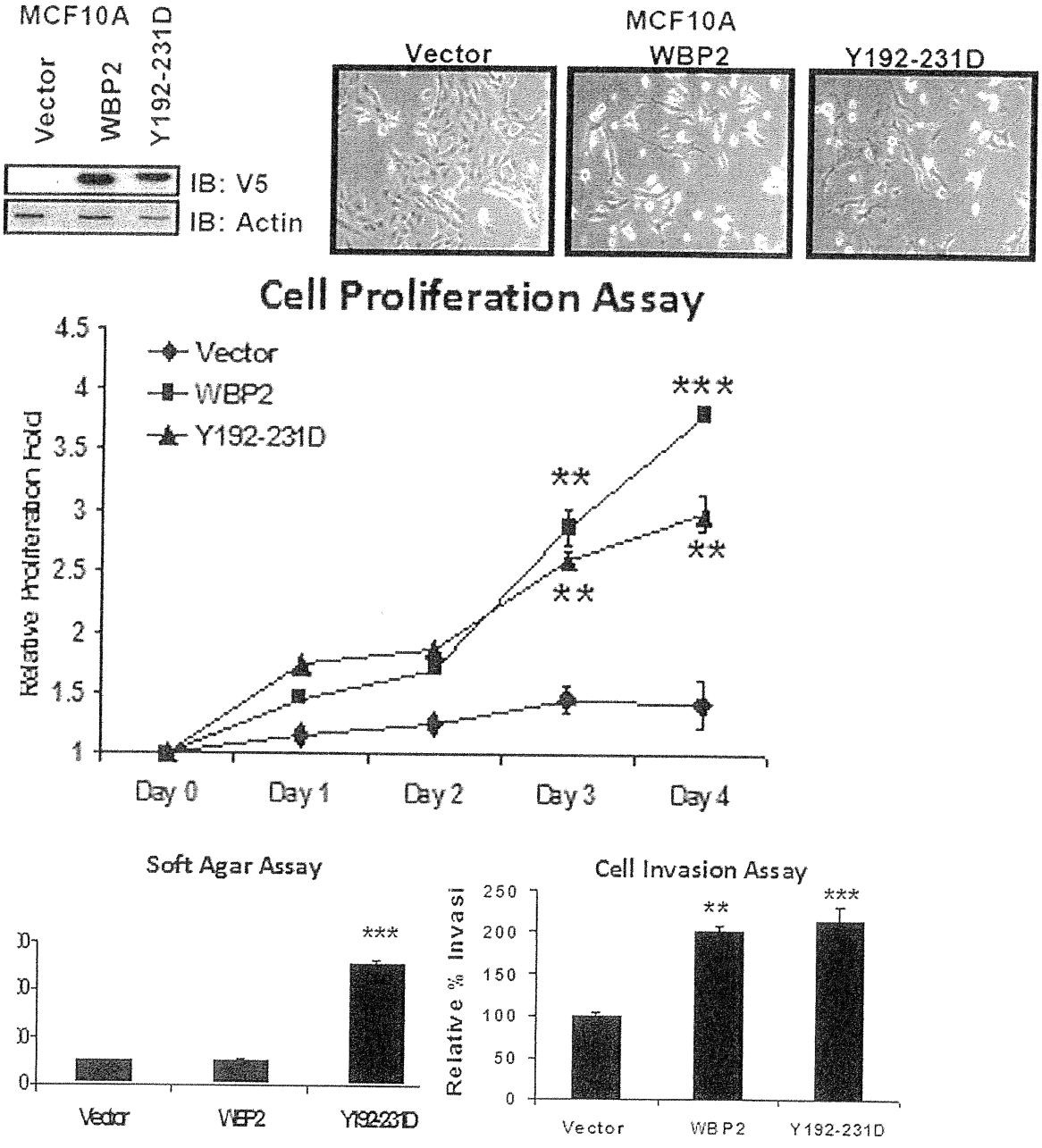

MCF10A
Vector
WBP2
Y192-231D
IB: V5
IB: Actin
MCF10A
Vector
WBP2
Y192-231D
Cell Proliferation Assay
Relative Proliferation Fold
Vector
WBP2
Y192-231D
Day 0
Day 1
Day 2
Day 3
Day 4
Soft Agar Assay
Vector
WBP2
Y192-231D
Cell Invasion Assay
Relative % Invasi
Vector
WBP2
Y192-231D

Figure 10

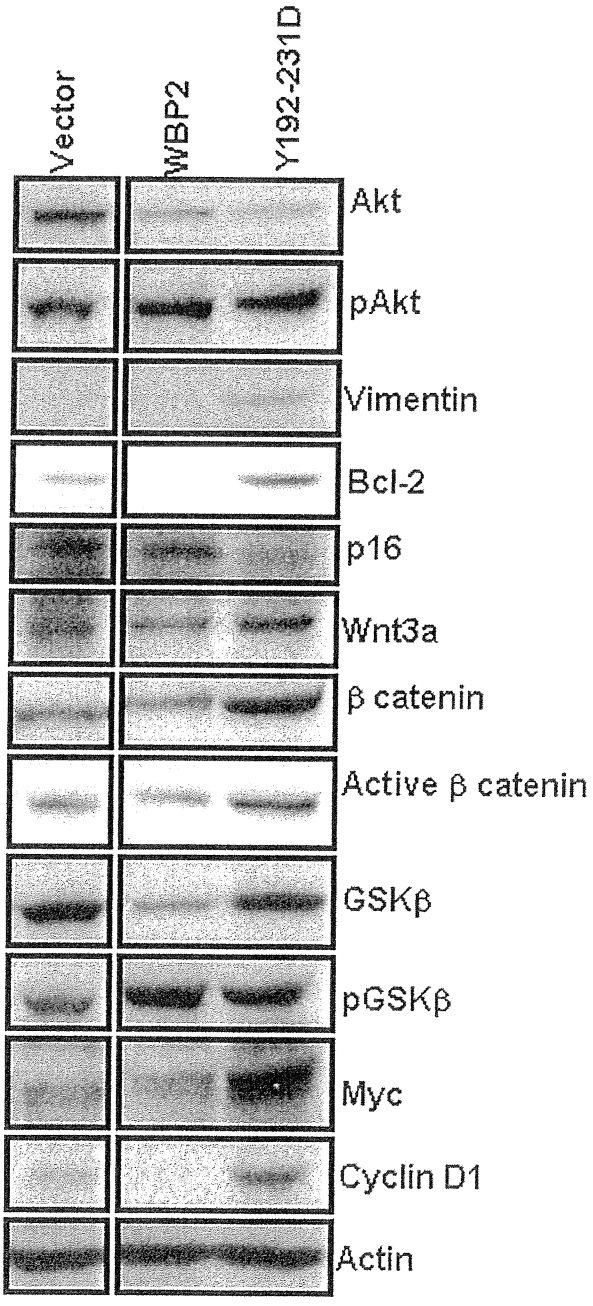
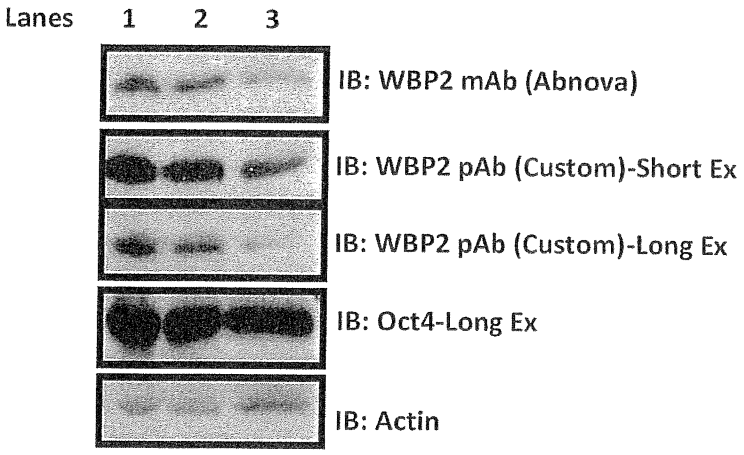

Vector
WBP2
Y192-231D
Akt
pAkt
Vimentin
Bcl-2
p16
Wnt3a
β catenin
Active β catenin
GSKβ
pGSKβ
Myc
Cyclin D1
Actin

Figure 11



Lane 1: undifferentiated HM-1 (overconfluent)
Lane 2: undifferentiated HM-1 (80-90% confluent)
Lane 2: Differentiated HM-1 (following LIF withdrawal and Retinoic acid

Figure 12

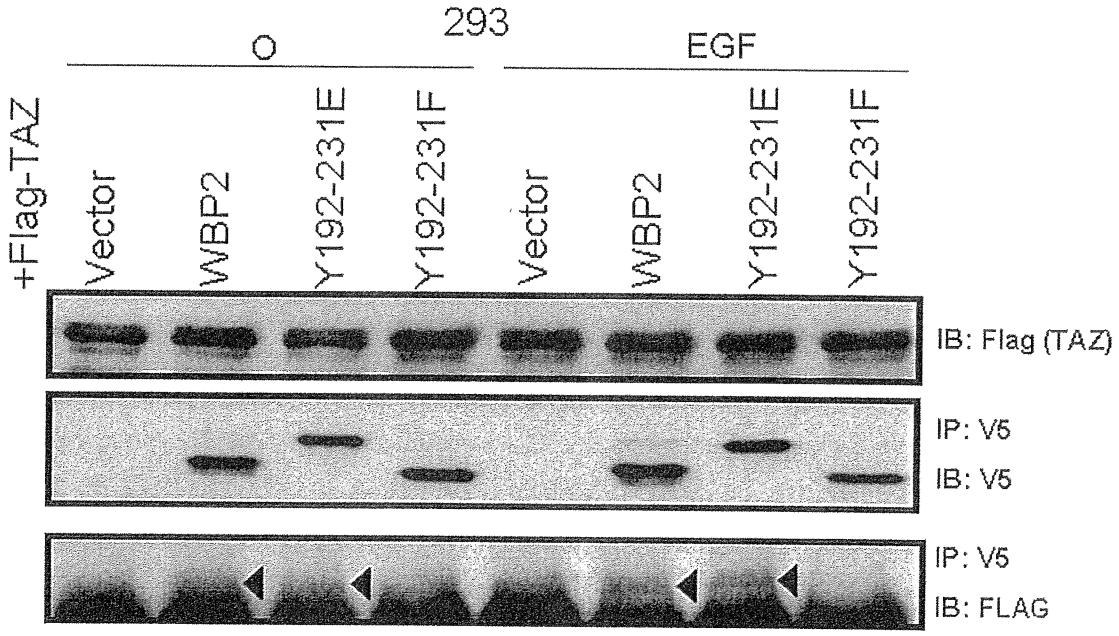


Figure 13

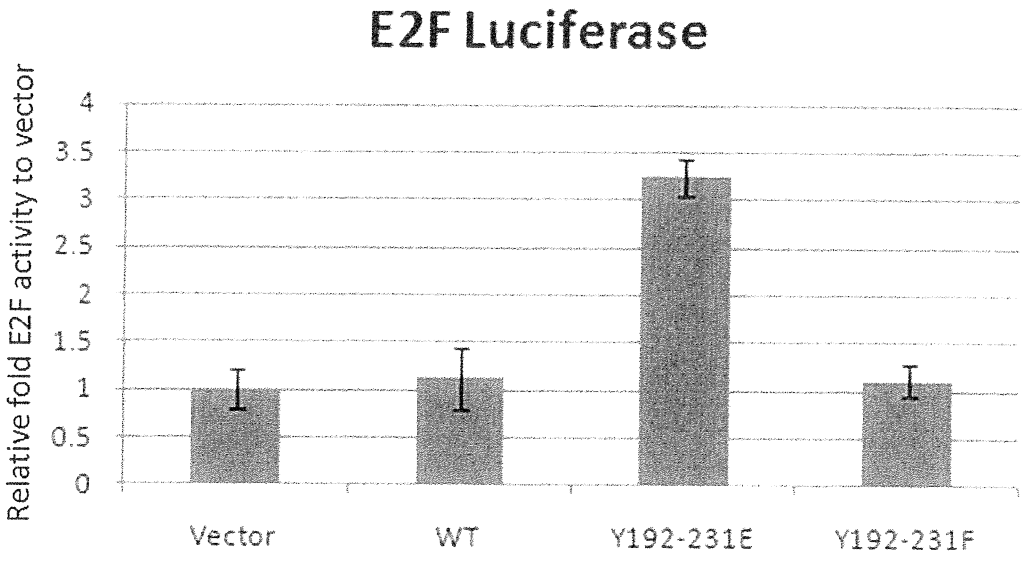
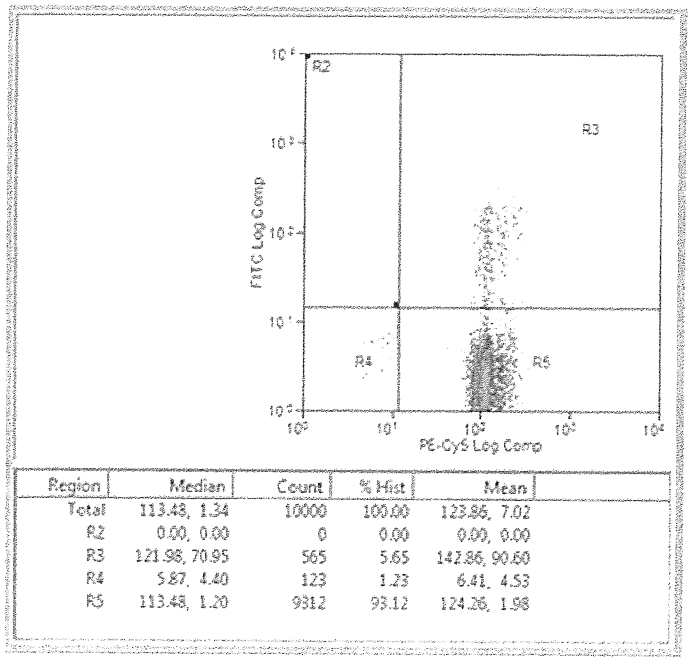


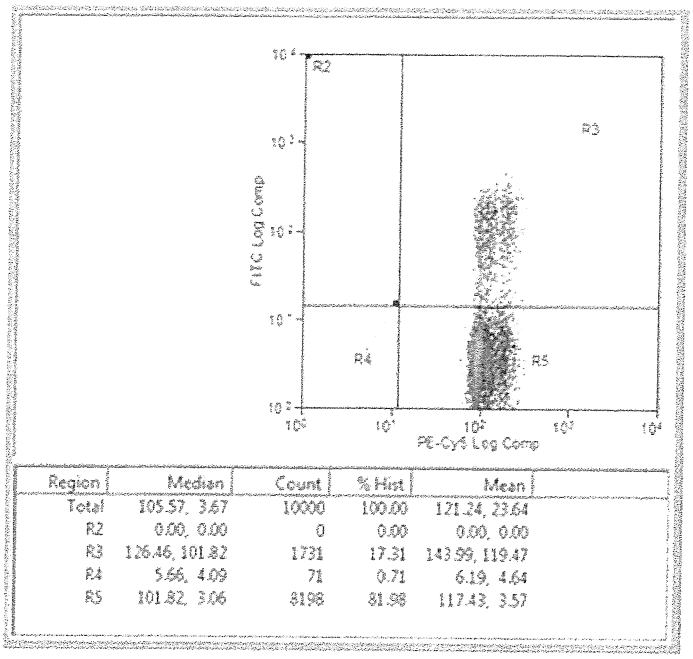
Figure 14



Region	Median	Count	% Hist	Mean
Total	113.48, 1.34	10000	100.00	123.86, 7.02
R2	0.00, 0.00	0	0.00	0.00, 0.00
R3	121.98, 70.95	565	5.65	142.86, 90.60
R4	5.87, 4.40	123	1.23	6.41, 4.53
R5	113.48, 1.20	9312	93.12	124.26, 1.98

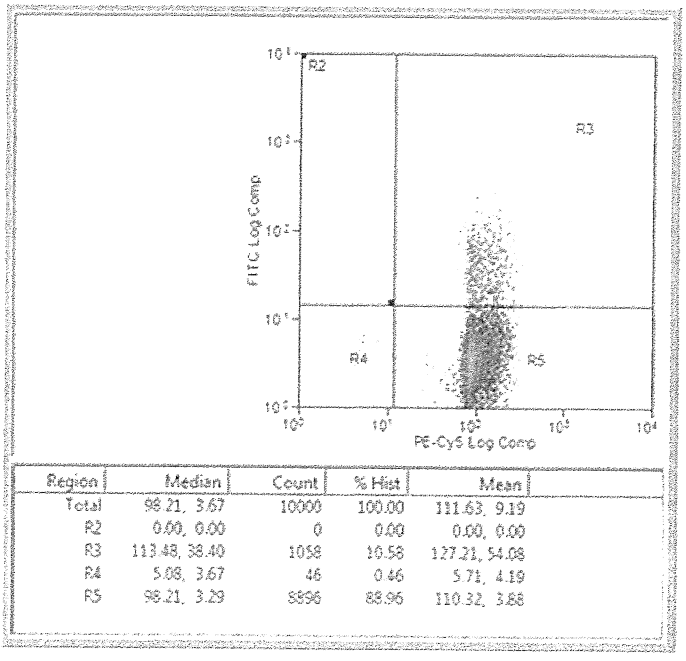
Vec

Figure 15



Region	Median	Count	% Hist	Mean
Total	105.57, 3.67	10000	100.00	121.24, 23.64
R2	0.00, 0.00	0	0.00	0.00, 0.00
R3	126.46, 101.82	1731	17.31	143.99, 119.47
R4	5.66, 4.09	71	0.71	6.19, 4.64
R5	101.82, 3.06	8198	81.98	117.43, 3.57

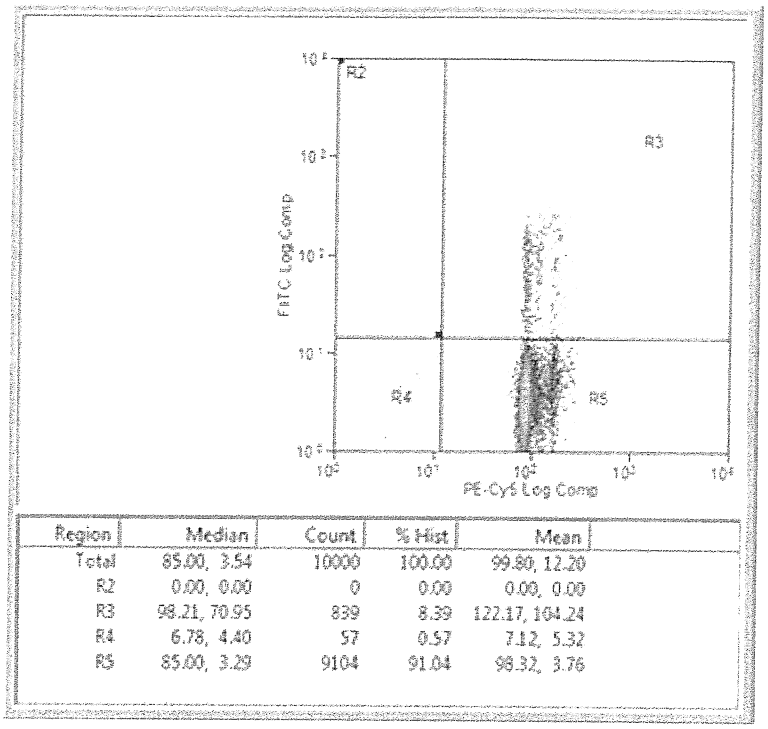
WBP2-Y192-231E



Region	Median	Count	% Hist	Mean
Total	98.21, 3.67	10000	100.00	111.63, 9.19
R2	0.00, 0.00	0	0.00	0.00, 0.00
R3	113.48, 38.40	1058	10.58	127.21, 54.08
R4	5.08, 3.67	46	0.46	5.71, 4.19
R5	98.21, 3.29	8896	88.96	110.32, 3.88

WT

Figure 15 continued



Region	Median	Count	% Hist	Mean
Total	85.00, 3.54	10000	100.00	99.80, 12.20
R2	0.00, 0.00	0	0.00	0.00, 0.00
R3	98.21, 70.95	839	8.39	122.17, 104.24
R4	6.78, 4.40	57	0.57	7.12, 5.32
R5	85.00, 3.29	9104	91.04	98.32, 3.76

WBP2-Y192-231F

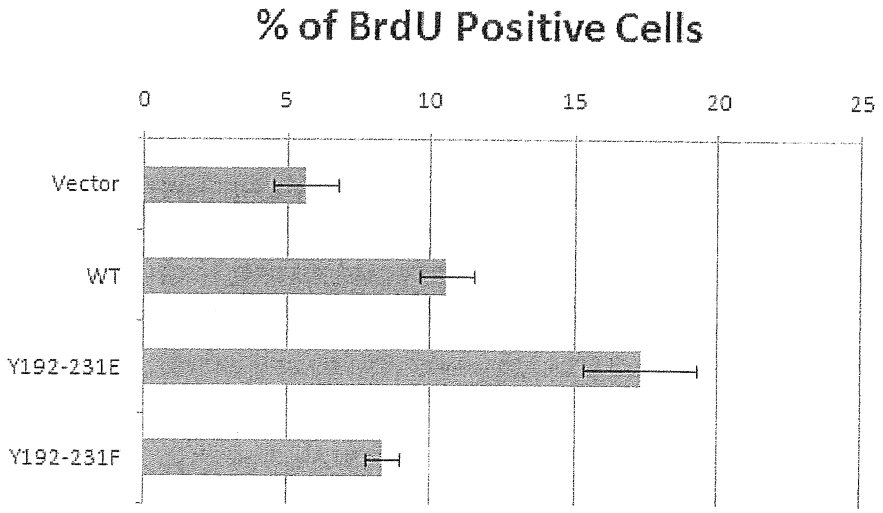


Figure 15 Continued

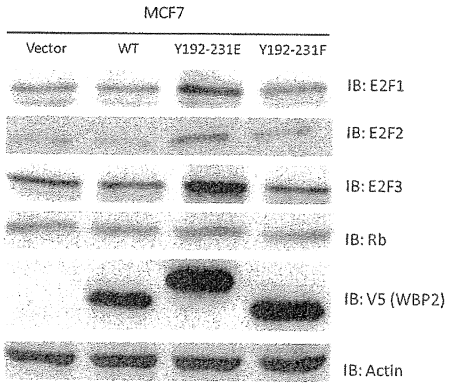
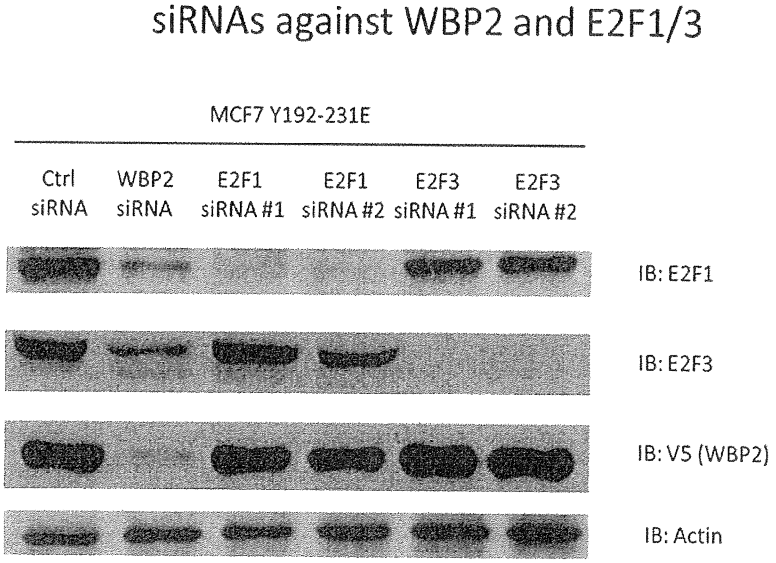


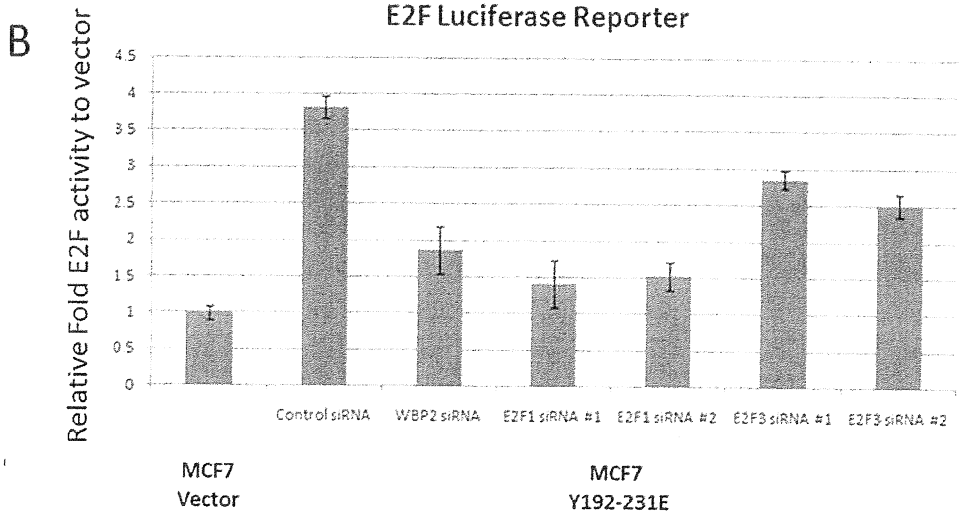
Figure 16

Figure 17

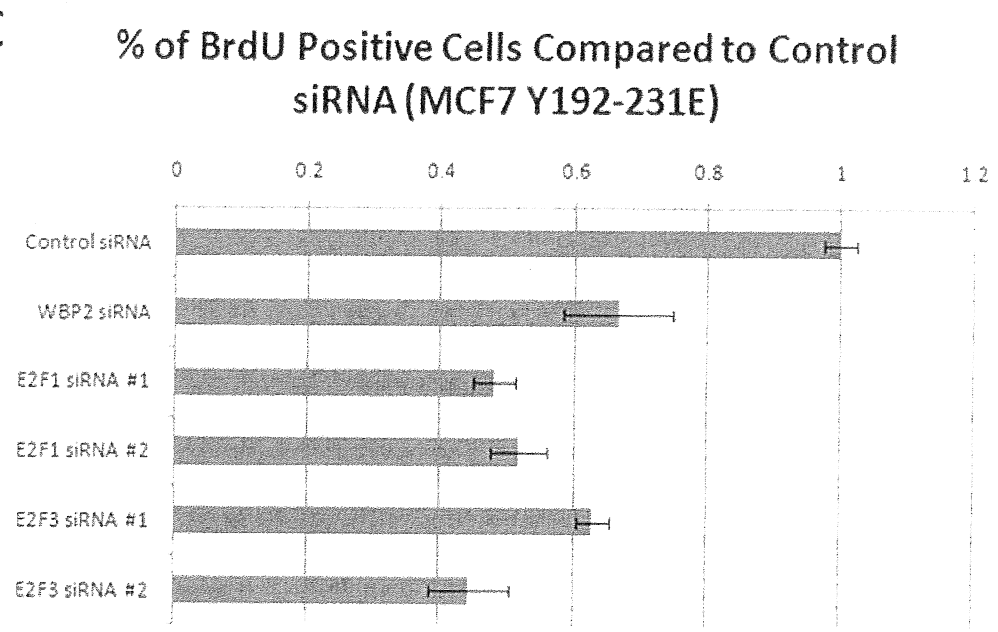
A



B



C



D

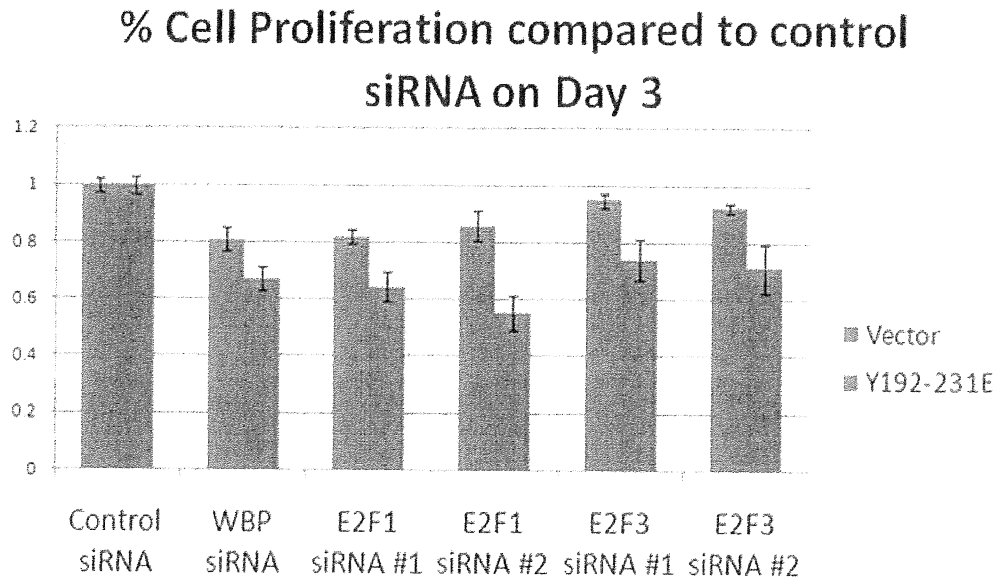


Figure 17 continued

A

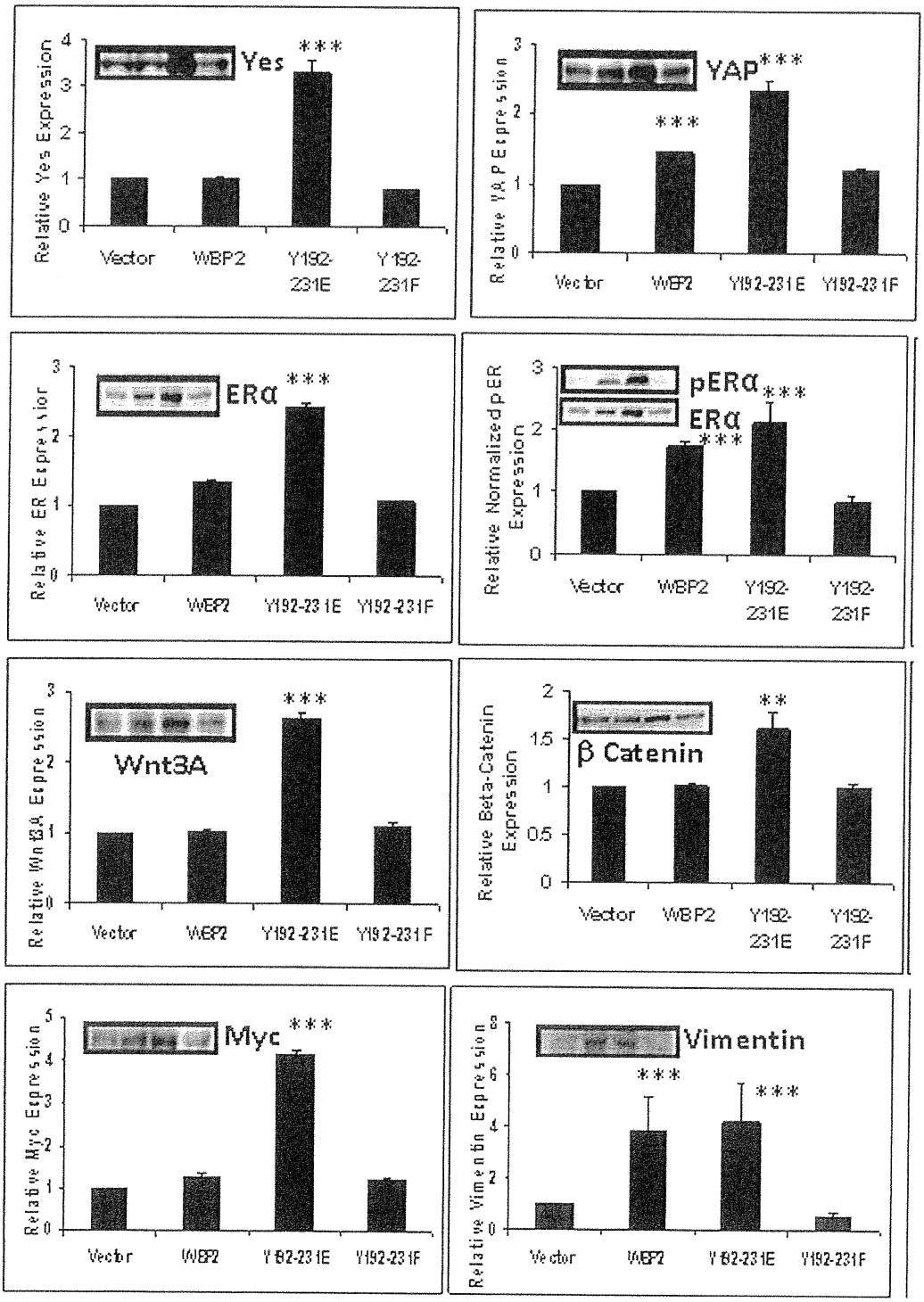

Yes
***
Relative Yes Expression
Vector
WBP2
Y192-231E
Y192-231F
YAP
***
***
Relative YAP Expression
ERα
***
Relative ER Expression
pERα
ERα
***
***
Relative Normalized pER Expression
Wnt3A
***
Relative Wnt3A Expression
β Catenin
**
Relative Beta-Catenin Expression
Myc
***
Relative Myc Expression
Vimentin
***
***
Relative Vimentin Expression

Figure 18

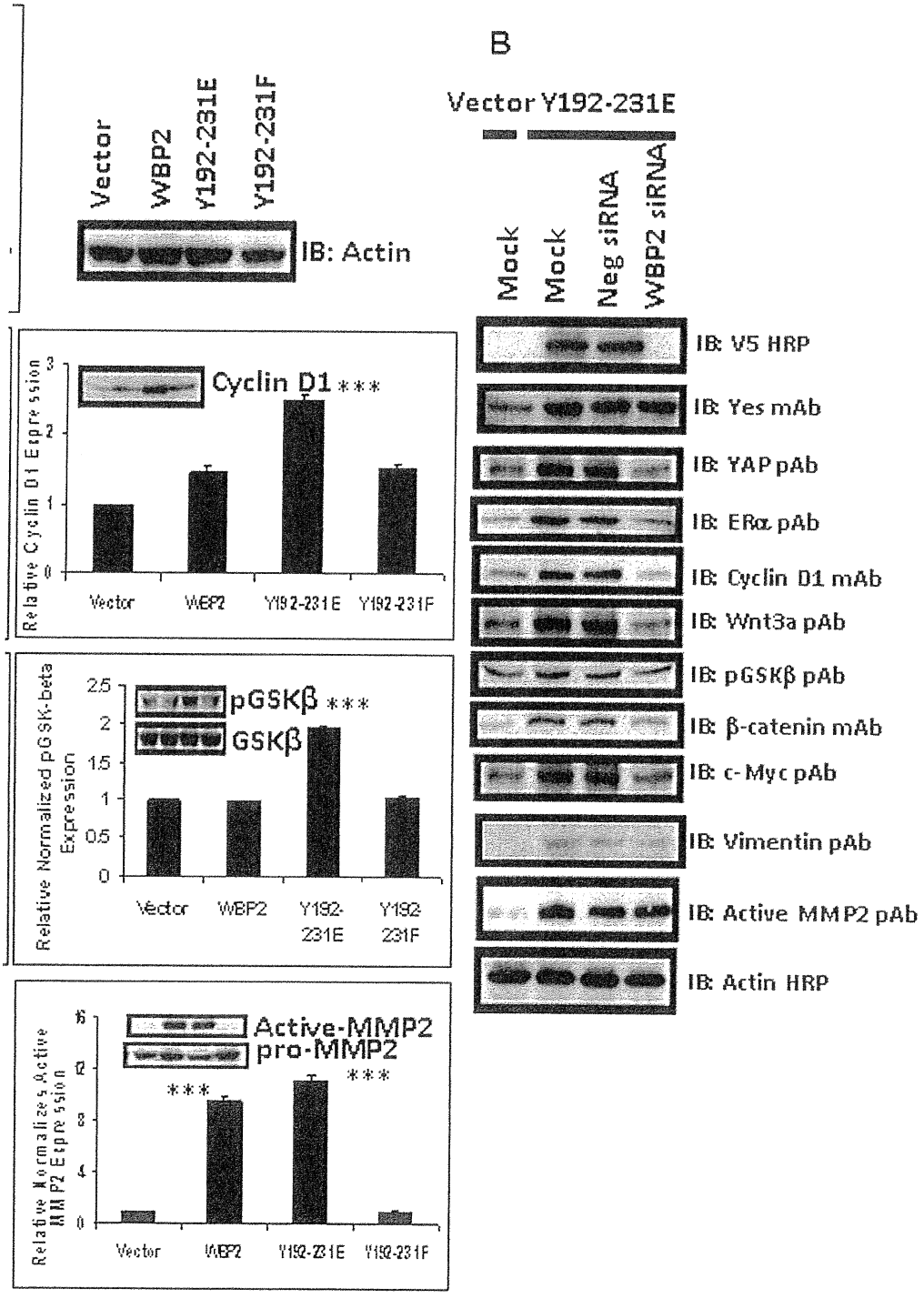


Figure 18 continued

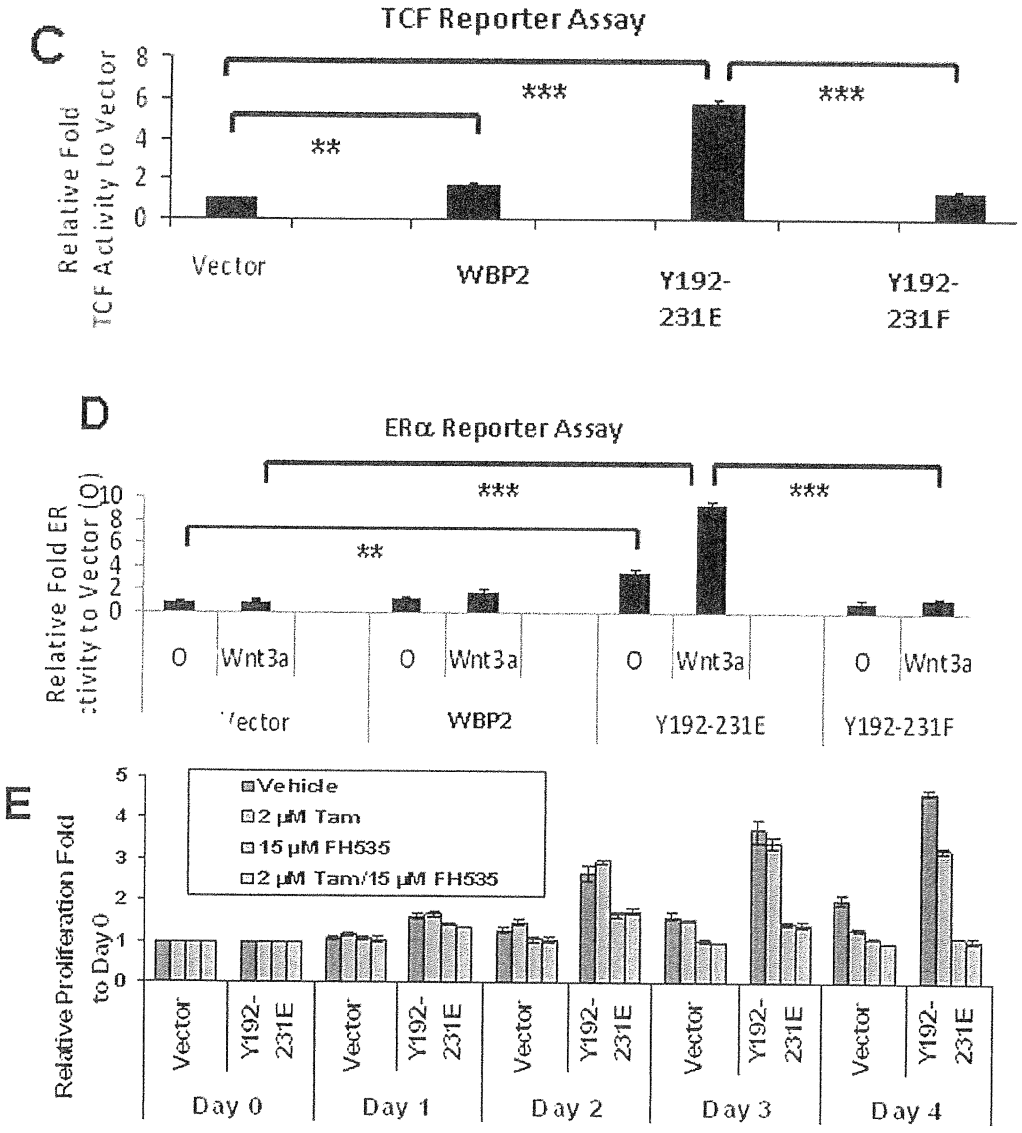


Figure 18 Continued

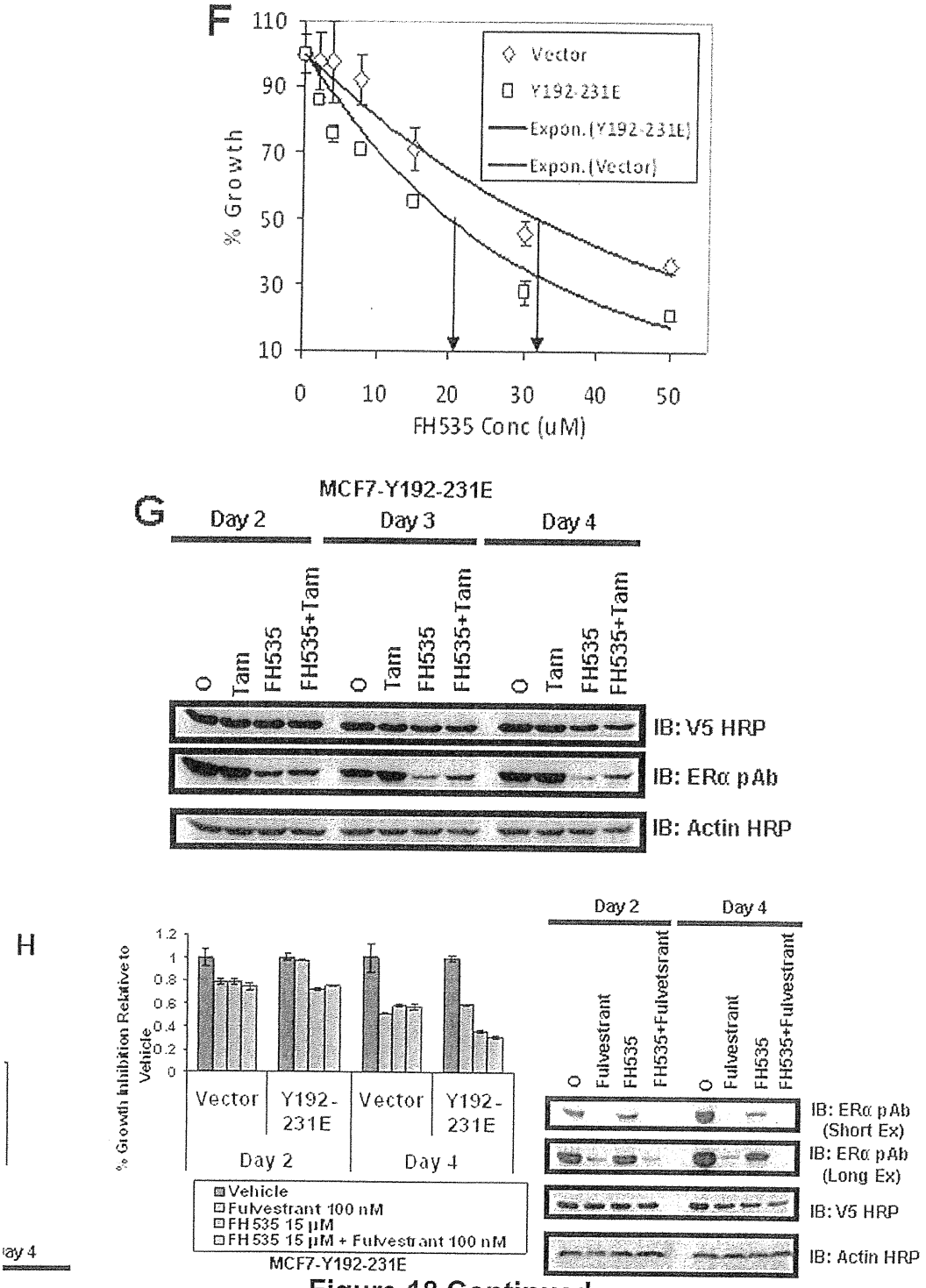


Figure 18 Continued

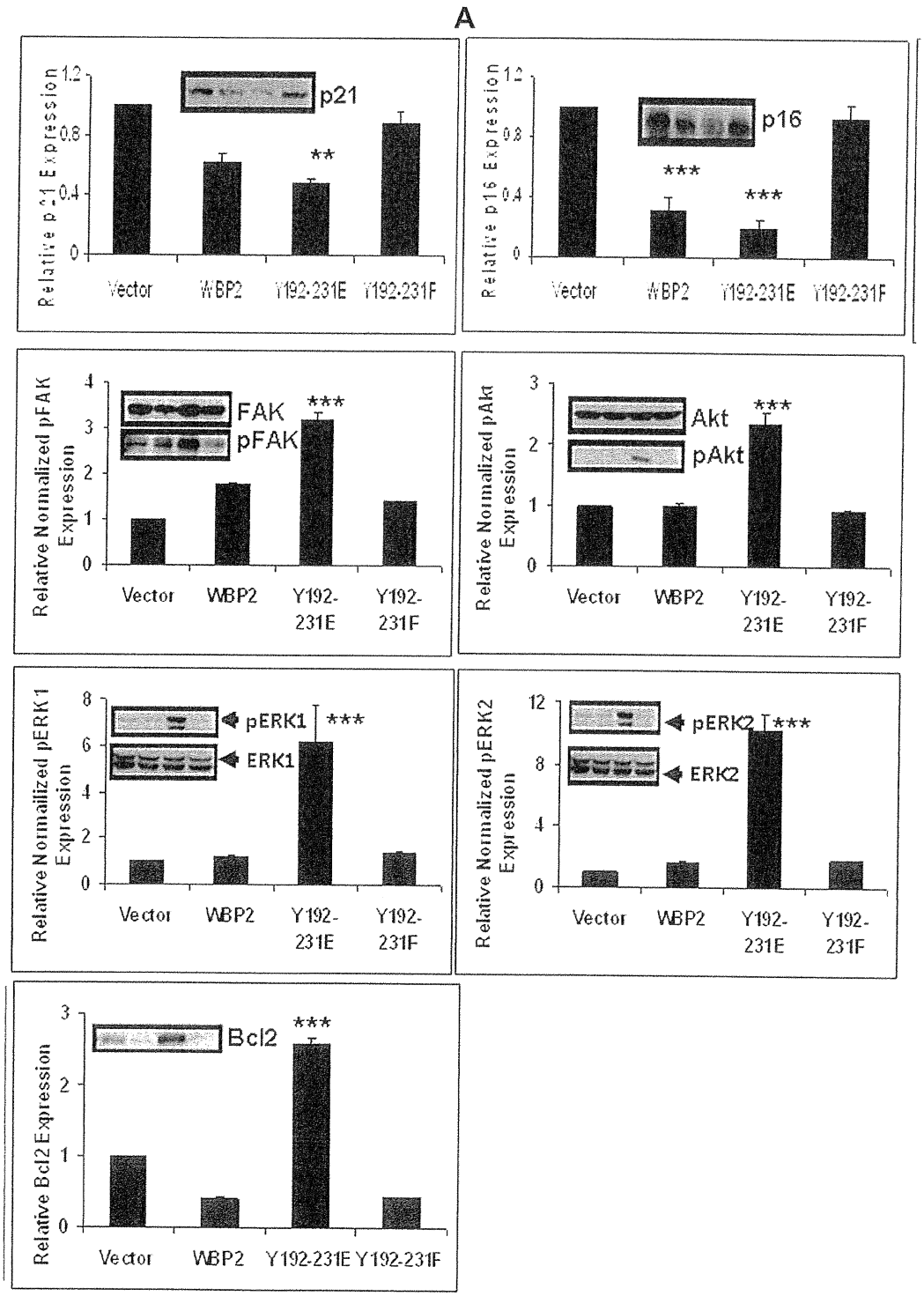

A
Relative p21 Expression
p21
**
Vector
WBP2
Y192-231E
Y192-231F
Relative p16 Expression
p16
***
***
Relative Normalized pFAK Expression
FAK
pFAK
***
Relative Normalized pAkt Expression
Akt
pAkt
***
Relative Normalized pERK1 Expression
pERK1
ERK1
***
Relative Normalized pERK2 Expression
pERK2
ERK2
***
Relative Bcl2 Expression
Bcl2
***

Figure 19

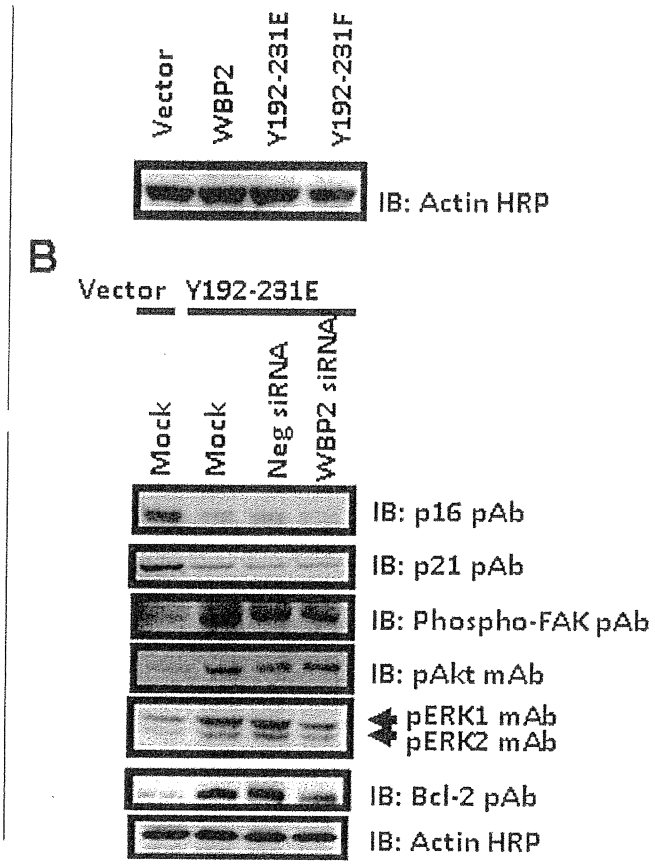


Figure 19 Continued