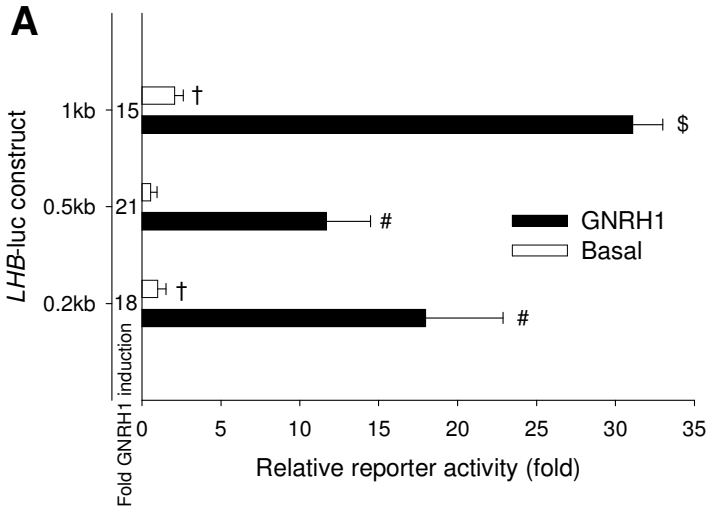
SUPPLEMENTARY FIGURE LEGENDS

Fig. S1: A) LβT2 cells were transfected with 450 ng/well of the indicated *LHB*-luc reporters and treated for 6 h with 10^{-7} M GNRH1. Fold induction by GNRH1 for each reporter is indicated at the left of the graph. Bars with different symbols differ significantly. N=3 for all treatments. B) The 0.2 kb *LHB*-luc construct was transfected in LβT2 cells as above. Cells were treated with 10^{-8} (closed circles), 10^{-7} (open circles) or 10^{-6} M (closed triangles) GNRH1 for 2, 4, 8 or 24 hours. N=2 for all treatments. Experiments were repeated three or more times with similar results each time.

Fig. S2: A) LβT2 cells were transfected as in Fig. 2B. After overnight starvation in serum-free DMEM, cells were pre-treated with 5 x 10^{-6} M of the MEK inhibitor U0126, 10^{-5} M of the p38 inhibitor SB202190 or 2.5 x 10^{-5} M of the JNK inhibitor SP600125 for 30 min followed by treatment with 10^{-7} M GNRH1 for 6 h. The fold induction by GNRH1 is indicated at the bottom of the graph. B) LβT2 cells were transfected with 450 ng/well 0.2 kb *LHB*-luc reporter and 200 ng/well of constitutively active Raf1 (Raf-CAAX) and/or ca-MKK6 vectors. Bars with different symbols differ significantly. N=3 for all treatments.

Fig. S3: CHO cells were transfected with WT or siRNA-resistant (Res.) forms of Flag-tagged EGR1 (A), SF1 (B) or Pitx1 (C), with 10^{-8} M control, *Egr1*, *Sf1* or *Pitx1* siRNAs or 1X siRNA buffer. Whole-cell lysates were collected and subjected to anti-Flag western blot analyses. Arrowhead and asterisk in panel A indicate specific and non-specific bands, respectively.


A
LHB-luc construct
1kb
0.5kb
0.2kb
15
21
18
†
$
#
GNRH1
Basal
Fold GNRH1 induction
0
5
10
15
20
25
30
35
Relative reporter activity (fold)

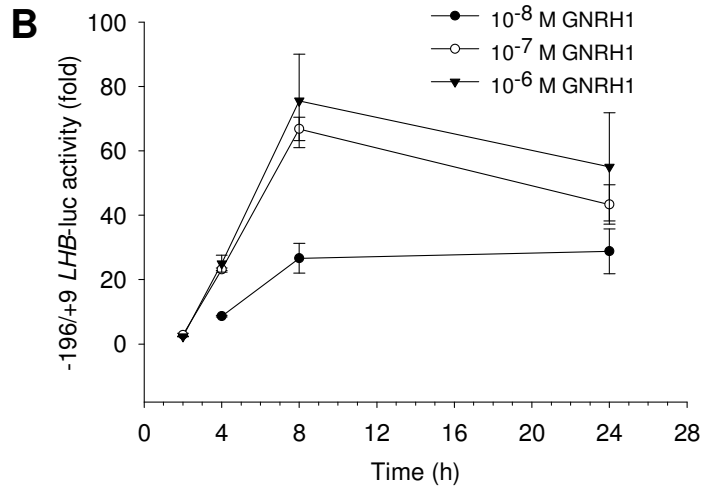
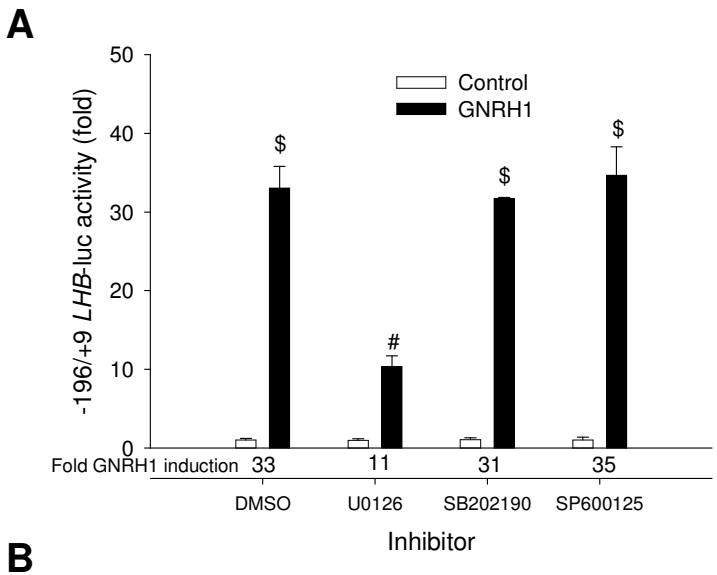

B
10-8 M GNRH1
10-7 M GNRH1
10-6 M GNRH1
-196/+9 LHB-luc activity (fold)
100
80
60
40
20
0
0
4
8
12
16
20
24
28
Time (h)

Fig. S1


A
Control
GNRH1
-196/+9 LHB-luc activity (fold)
50
40
30
20
10
0
$
#
$
$
Fold GNRH1 induction
33
11
31
35
DMSO
U0126
SB202190
SP600125
Inhibitor

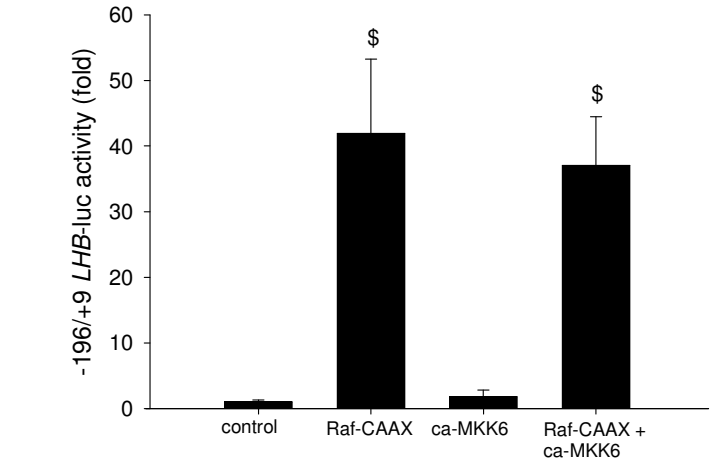
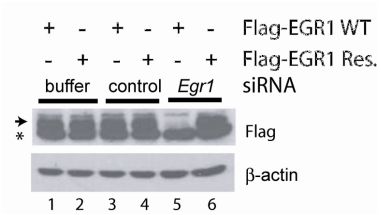
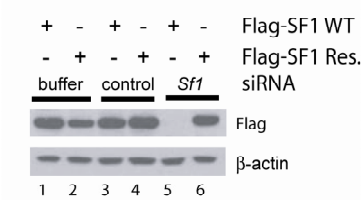

B
-196/+9 LHB-luc activity (fold)
60
50
40
30
20
10
0
$
$
control
Raf-CAAX
ca-MKK6
Raf-CAAX +
ca-MKK6

Fig. S2

A


+ - + - + - Flag-EGR1 WT
- + - + - + Flag-EGR1 Res.
buffer control Egr1 siRNA
Flag
β-actin
1 2 3 4 5 6

B


+ - + - + - Flag-SF1 WT
- + - + - + Flag-SF1 Res.
buffer control Sf1 siRNA
Flag
β-actin
1 2 3 4 5 6

C

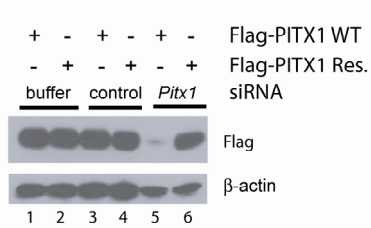

+ - + - + - Flag-PITX1 WT
- + - + - + Flag-PITX1 Res.
buffer control Pitx1 siRNA
Flag
β-actin
1 2 3 4 5 6

Fig. S3