

Supplemental Table 1. Oligo primers used for site-directed mutagenesis

primers	Sequence 5'→3'
PRE1 F	acatccattetgtttctgGAATTCcagcctcactctgtctac
PRE1 R	gtagacagagtgaggctgaGAATTCcagaaacagaatggatgt
PRE2 F	catttggtttaaatagtgacGAATTCaagggatgtgaaagagaaa
PRE2 R	atttctctttcacatcccttGAATTCgtcactatttaaacacaaatg
PRE3 F	gtgagagggcctgggatccGAATTCtttcacataccaagtatg
PRE3 R	cataacttggtatgtgaaaGAATTCggatcccaggccctctcac
PRE4 F	attaaatcctttccaccgaggGAATTCgctgatggctgtgacag
PRE4 R	ctgtcacagccatcagcGAATTCcctcgggtgaaaggatttaat
PRE5 F	gtcctttcttgggatattGAATTCtggaatctagccaccacac
PRE5 R	gtgtggtggctagattccaGAATTCaatatcccaagagaaaggac
PRE6 F	cccttctcctagaggtcctGAATTCaactgaggtccaattccac
PRE6 R	gtggaattggacctcagttGAATTCaggacctctaggagaaggg
Gata2 F	ctctcccactccccatCTCGAGgtgacttgacacactctg
Gata2 R	cagagtgtgtcaagtcacCTCGAGatggggagtggaggag
Ap2 F	ctccccagctcccttttCTCGAGgggctaaggcttagtgg
Ap2 R	ccactaagccttagccCTCGAGaaaaggaggctggggag

Supplemental Table 2. Oligo primers used for the ChIP assays

Primers/ location	Amplified fragment (bp)	Sequence 5'→3'
1F (-5655 to -5636)	169	TAAACAAGCAGGCACCTTCC
1R (-5487 to -5506)		CCAAGGGTCTAGCAATTCCA
2F (-5506 to -5487)	220	TGGAATTGCTAGACCCTTGG
2R (-5287 to -5306)		CCTTTTGCTGATCCCACTGT
3F (-5306 to -5287)	254	ACAGTGGGATCAGCAAAGG
3R (-5053 to -5072)		TCAGTCAGCTCTGAAGGGT
4F (-5072 to -5053)	209	ACCCCTTCAGAGCTGACTGA
4R (-4864 to -4883)		GATTAAAGGGTGAGGGCACA
5F (-4883 to -4864)	190	TGTGCCCTCACCTTTAATC
5R (-4694 to -4713)		TCTAGCCCCTGGGAAAGAAT
6F (-4713 to -4694)	191	ATTCTTTCCAGGGGCTAGA
6R (-4523 to -4544)		ATAAGATGGGGAGTGGGAGG
Gata2- F(-4543 to -4525)	167	CTCCTCCCACTCCCCATCT
Gata2- R(-4375 to -4393)		GACCACTAAGCCTTAGCCC

Supplemental Figure Legends

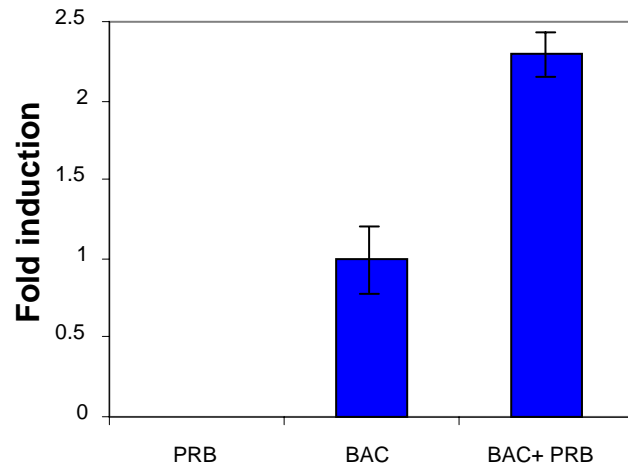
Supplemental FIG. 1. Progesterone can stimulate the expression of the *lacZ* reporter gene as measured by quantifying β -galactosidase activity. The *lacZ* gene was introduced by recombineering into the RPI23 99o4 BAC that contains a ~220kb insert, including the entire mouse *Ednra* gene locus. Similar results were obtained with the RPI24-289k16 BAC. BACs were transfected by electroporation into Cos7 cells with or without PRB. Cells were cultured in presence of FBS for 48 hours before measuring the enzymatic activity.

Supplemental FIG. 2. Activation of the *Ednra* promoter activity measured by luciferase enzymatic assay following progesterone treatment. CHO-1 and Cos-7 cells were transfected with the pGL4.26 *Ednra* -8;-0.5 and progesterone receptor B (PRB) vectors then treated with 2ng/ml of progesterone. These cells responded similarly to the 293E cells, indicating the specificity of the response.

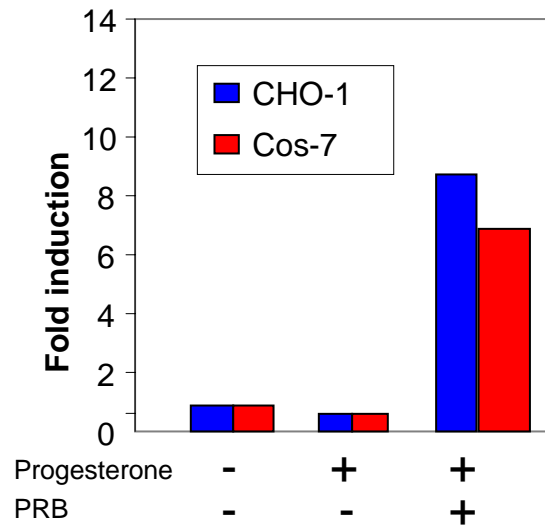
Supplemental FIG. 3. Example of ChIP PCR results. In figure 4, 5 and 6, only lane 3, 4, 5 and 6 are shown. Lane 4 shows a positive PCR control result. The band seen in lane 1, 2, 3, 5 and [-] are the primer dimmers. All ChIP experiments were repeated at least 3 times. All ChIP experiments were done following the same scheme except for Fig. 7E.

Supplemental FIG. 4. *PRE* and *GATA2* elements are present in the same upstream non-coding region of the human *EDNRA* gene.

Supplemental Fig. 1, Zhang et al.

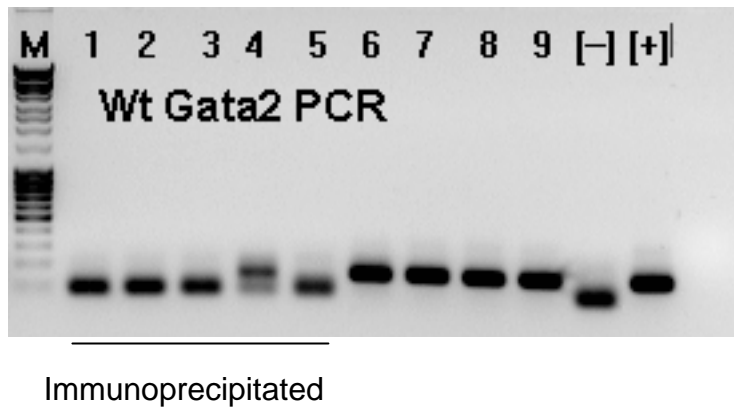


Supplemental Fig. 2, Zhang et al.



Supplemental Fig. 3, Zhang et al.

ChIP assay with anti-PRB for Gata2 site



Lane:

1. Ednra-luc Vector
2. +Progesterone (P4)
3. +hPRB
4. +P4+hPRB
5. +P4+hPRB Ab control
6. Input of vector
7. Input of +P4
8. Input of +hPRB
9. Input of +P4+hpBR
10. (-) no DNA control
11. (+) BAC 99o4 or 289k16

Human

AAAAGTAGAATTGCTGGATCATAGGGTAATTTTATGTTTAATTTTGGAGGGCTGCCATGCT
 GTTTTCCACAACCTGCTACACTATATTTTACATTGAGACTGGCAATGCACAAGGGTTCCAATTT
 CTCAACATTCTTGCCAACACT**IGTTCI**TTGCTGTTTTGCTTTTTGTTTTACTATAATGGC**TATC**
CTAATAGGTGTGAAGGAAGAATTTTAGTAAGT**AGTCCT**ACACCACAGTGAGATCAGCTGTC
 TCAATAGGTGGGTCATGATGAATG**IGTTCI**AGCAAAGACTGGACAGATTGACATATTCAGAT
 ATGCAGGTGATGCACTGTCCAAGTGTGTCTGGCCACAGAGTGAATAAGGGCTGAAATCC**AG**
CACATGTTTCACGGGCCAAGATGTGAACTGCCTCTTTTGGGAGGAAGCAGTAAGTTTTTCTT
 TCCCGAAAATATTGTCAGCTTGCCAAGCCACATGCCCAAAGGGTCACCTTTTTTTAATATAA
 ACAATGGCACTTATAAAAGCTATTAGTTATTCTGGTTGGCTGATTCTCCCTCCTAGAGAAGCT
 GTAAGATTAGTGAACAGGGTAATATCTAGTCTAACCCCTATGATGGTTTTACAAAATGGTCCC
 TAAATTTCTTTGACACTCCTCACACTAAGGGTTGGGCTCTATATACCCTCACCTTCAATCTGGG
 ATTTGTGACTGCTTGACTAATAGAATCAAGCAGAAATGACACGGTGCCAGTTTCTGGGCCCA
 GCCCTTAAGAACTGGCAGCTTCCACTTTCTGTCTCTGGGGACATT**CACTCT**TGGATCCCCG
 CCACCATGCTGTGAGGAAGCCCAAACCACAAGTCTCCACAAGTCTTTGTGGAGAGACGCAC
 GTGGAGAAAACTAACACTCAACACCAAGCAAGTGAAGTGTCTTGGAAGTGGATCCTCCAG
 CCCCTGCTACATGGAGCAAAAACGAGCTGTCCAGACAGGCTCTGCCCAAACCTGCAGACTG
 ATAAGCAGAGTAAATGAGTGTGTTATTTTAAGCCACTACGTTTTATAGTAATTTGTTTAGCT
 GCAGCAGATAGCCGGAACAGCATGGGATATAACATGACCAGTGCTCCAACCTCACACTTCT
 ACCATGTGCTGACTCTAGCAGTGCCTGAAGGACTCCAAGGCAGGCCTTCCCTGAGGAGACC
 CCAGTTTTTACTCACATGTACAGGCAGTGGCCTTTGTCCCTCATCTCCTCTCCACCCCCAA
 TTTA**GGATAAA**GTATCTGCCGTGATAAAGACGTTGAGACCCACTTTCTGTAAGGTCGGCTTC
 TTCATTGTTGAATTTCTTGAGGTTTACGGAGCCACGCGCTGGAACCTTCCATAGTCTCTCC
 TGAGGCTCCTTCTTTGCCCTGGGCTGGAGGTCTGTAGCCGTGGGATGCTGGCTACAAGGG**AC**
AAGATAGAAGCAAACCACCTGATCCAGTAAACTGCTGTCCACTTCGGCTCCTCAACGGCCTC
 TAAGCTTAAGAGGGAGCACGCAAGCCAAGCAAAGGCGGCAGGGAAGACGGAGAAGAAACC
 ACCCGTGGGCCCTGGCTCTGTGTCCAGTTGTTCCGTCACAGATCAAATCTGCCTGCACTAAG
 AGGATGGGTTCCCTCTGCAAGGCCTTTCCGAATTCTGAG**CTTGT**CTGTCAAACCTCTACCCTCT
 CTCCTCCACATCCCCCACCTTTTCTTTTCCAGGAAGGAAATAGTTAAAAAAGACTCCTGCCCTTC
 AGGGCCTGGAAGGGGGCGGCAGCTTTGTGCTTTTTAGTGGCCGCGTCCAGGATAGCTGGAA
 GGTTAGGAC

Legend:

Red: PRE elements**Teal**: Partially conserved PRE elements**Yellow**: Closely aligning and conserved GATA element