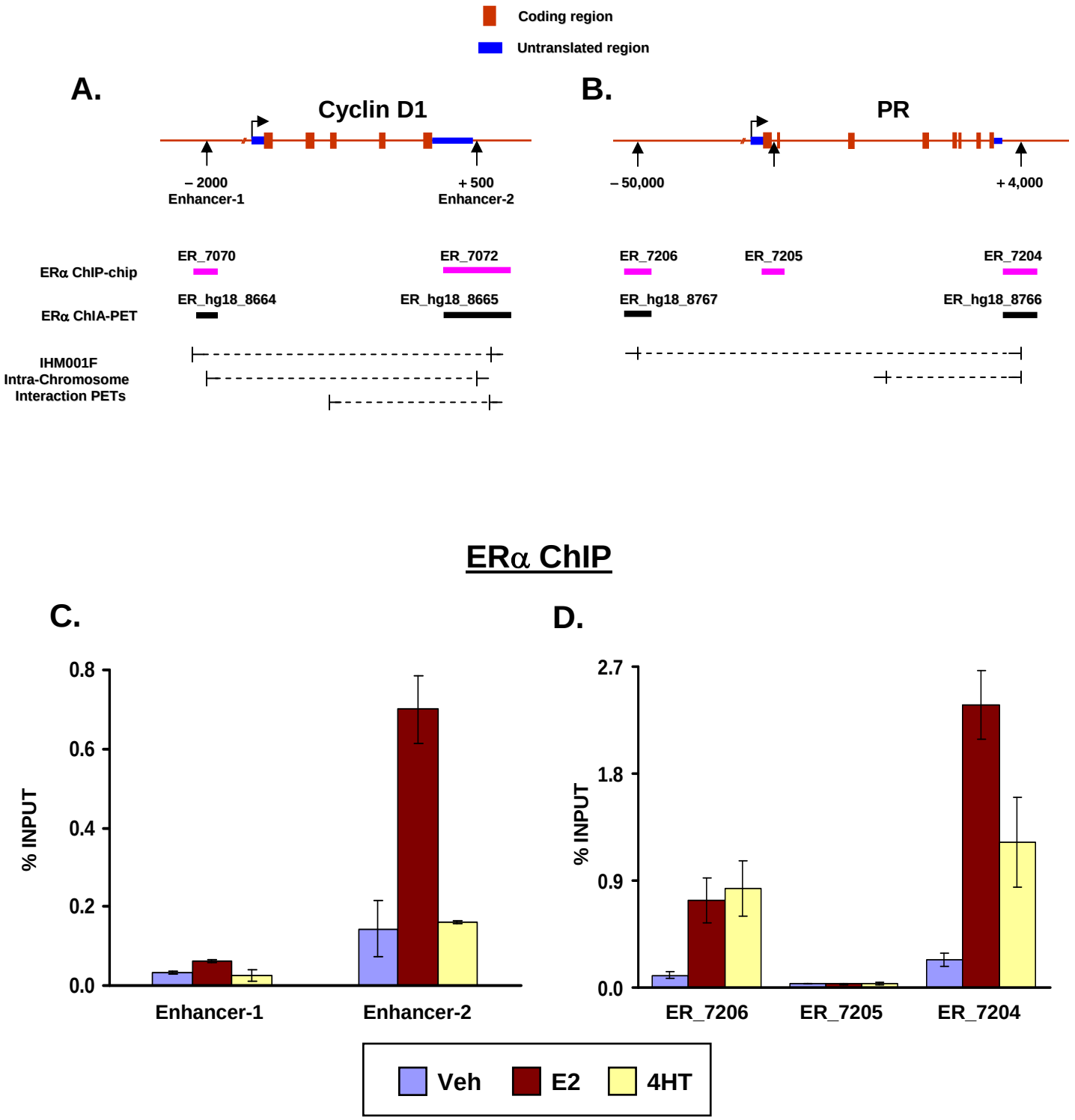
Supplemental Figure 1. Recruitment of ERα to the cyclin D1 and progesterone receptor genes. Schematic diagrams of the cyclin D1 (**A**) and PR (**B**) genes. The locations of ERα binding sites in the vicinity of cyclin D1 and PR genes determined by prior genome-wide ERα ChIP-chip experiments (1) or ERα ChIA-PET (2) studies are shown, as are the sites of ERα-bound chromatin interaction sites determined by paired-end tag (PET) sequencing [adapted from ref. (2)]. **(C & D)** MCF-7 cells were treated with vehicle, 10 nM E2 or 100 nM 4HT for 45 min and then subjected to ChIP assay using antibodies for ERα. Immunoprecipitated chromatin was quantitated by qPCR using primers to amplify the previously defined enhancers 1 and 2 of the cyclin D1 gene (panel C) or the ER_7204, ER_7205 and ER_7206 regions associated with the PR gene (panel D). Primer sequences and location of the amplicons are listed in Supplemental Table 1. Data represent an average ± SEM of 2-3 independent experiments.

Supplemental Figure 2. GST proteins used in GST pull-down assays. Proteins purified on glutathione beads were eluted and quantitated, and evaluated by Commassie stained SDS-PAGE gels to demonstrate that equivalent level of proteins were used in the GST pull-down assays reported in Fig. 6. Suppl Figs. 2A, B and C represent the controls for experiments shown in Figs. 6A, 6B and 6C, respectively.

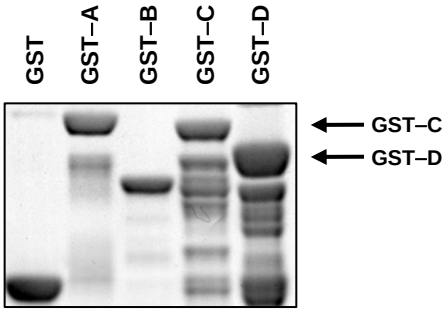
Supplemental Figure 3. A representative Western blot showing expression of SMRT and SRC-3 in tumor lysates. Approximately 35 μg of total protein from three tumor lysates and 15 μg of MCF-7 cell extract (used as a positive control) were resolved by SDS-PAGE and Western blotted for SMRT, SRC-3 and actin.



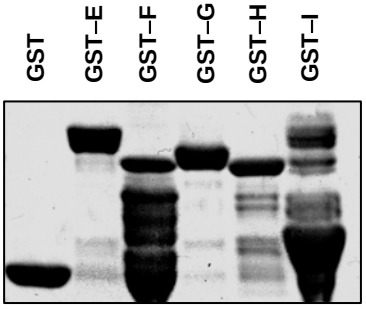
ERα ChIP

Supplemental Figure 1

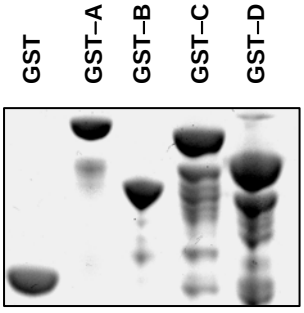
A.



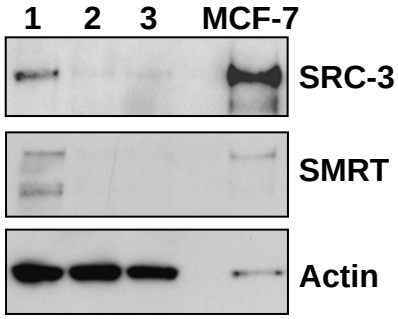
B.



C.



Supplemental figure 2



Supplemental figure 3

Supplemental Table 1. Primers used for qPCR analysis of ChIP assays.

Amplicon	Forward	Reverse	Reference
Cyclin D1 enhancer-1	5'-GCTCTTTACGCTCGCTAACC-3'	5'-GGGCAGATCTCGACTAGGAA-3'	(3)
Cyclin D1 enhancer-2	5'-CAGTTTGTCTTCCCGGGTTA-3'	5'-TCATCCAGAGCAAACAGCAG-3'	(3)
PR ER_7204	5'-AATGAGGCTGACATTCTGGGA-3'	5'-GTTGACCTCATTCCAAGGCAG-3'	(4)
PR ER_7205	5'-TGGTGCTGCTTTCGGTTCT-3'	5'-ACCAGGAGTGCTTGTCTTGGA-3'	(4)
PR ER_7206	5'-CAGGATGACCCAAAACACAGG-3'	5'-TCCCACACTTAACCCAATCCC-3'	(4)

Supplemental References

1. **Carroll JS, Meyer CA, Song J, Li W, Geistlinger TR, Eeckhoute J, Brodsky AS, Keeton EK, Fertuck KC, Hall GF, Wang Q, Bekiranov S, Sementchenko V, Fox EA, Silver PA, Gingeras TR, Liu XS, Brown M** 2006 Genome-wide analysis of estrogen receptor binding sites. Nat Genet 38:1289-1297

2. **Fullwood MJ, Liu MH, Pan YF, Liu J, Xu H, Mohamed YB, Orlov YL, Velkov S, Ho A, Mei PH, Chew EGY, Huang PYH, Welboren W-J, Han Y, Ooi HS, Ariyaratne PN, Vega VB, Luo Y, Tan PY, Choy PY, Wansa KDSAW, Zhao B, Lim KS, Leow SC, Yow JS, Joseph R, Li H, Desai KV, Thomsen JS, Lee YK, Karuturi RKM, Herve T, Bourque G, Stunnenberg HG, Ruan X, Cacheux-Rataboul V, Sung WK, Liu ET, Wei C-L, Cheung E, Ruan Y** 2009 An oestrogen-receptor-α-bound human chromatin interactome. Nature 462:58-64

3. **Eeckhoute J, Carroll JS, Geistlinger TR, Torres-Arzayus MI, Brown M** 2006 A cell-type-specific transcriptional network required for estrogen regulation of cyclin D1 and cell cycle progression in breast cancer. Genes Dev 20:2513-2526

4. **Madak-Erdogan Z, Kieser KJ, Kim SH, Komm B, Katzenellenbogen JA, Katzenellenbogen BS** 2008 Nuclear and extranuclear pathway inputs in the regulation of global gene expression by estrogen receptors. Mol Endocrinol 22:2116-2127