Supporting Information

Zong et al. 10.1073/pnas.0905931106

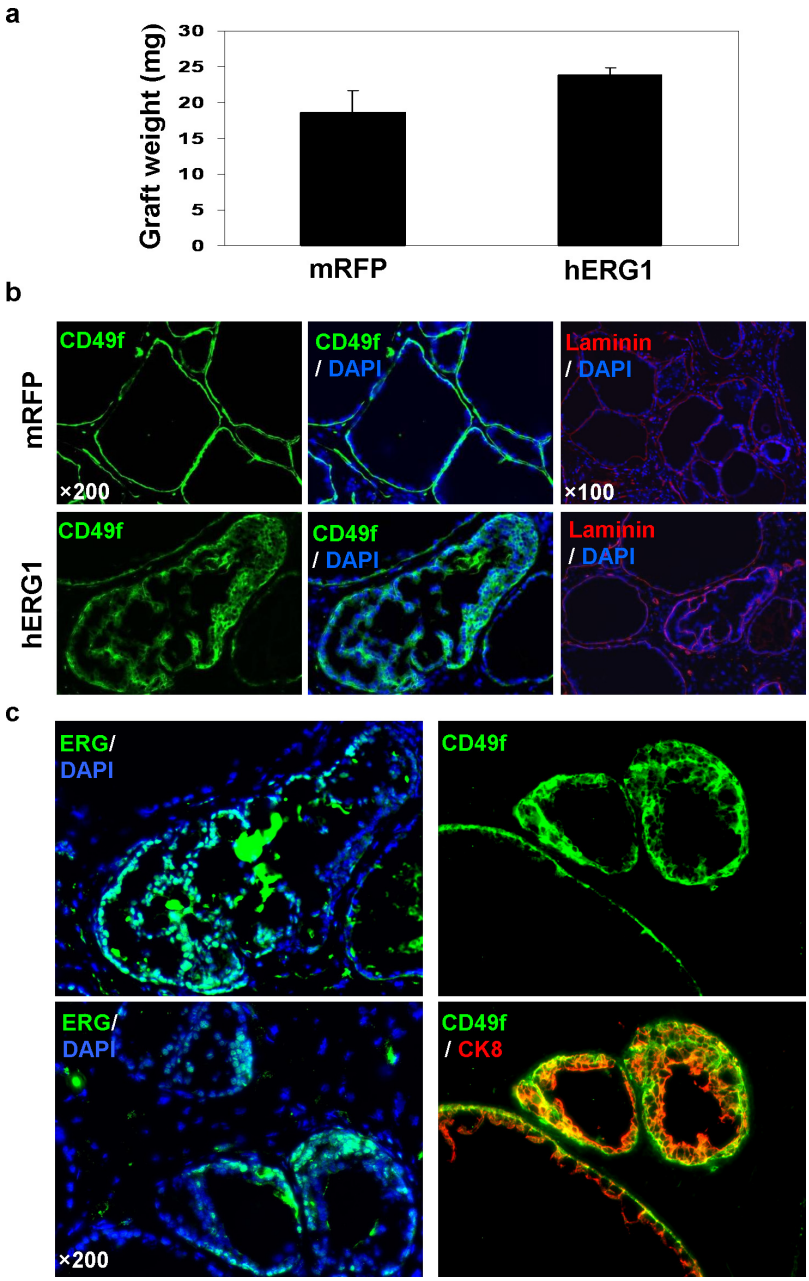

Fig. S1. Luminal expression of CD49f in *ERG*-transduced prostate glands. (*A*) No statistically significant difference ($P > 0.05$) in the weight between *mRFP*- and *ERG*-transduced prostate grafts ($n = 2$). (*B*) Increased expression of CD49f on luminal epithelial cells in *ERG*-transduced prostate tubules, as compared with *mRFP*-transduced glands. No obvious changes in the expression pattern of laminin in *ERG*-transduced prostate glands were detected. (*C*) IF analysis of frozen sections of *ERG*-transduced prostate grafts, showing the coexpression of CD49f and CK8 in the luminal epithelial cells of *ERG*-transduced prostate glands.

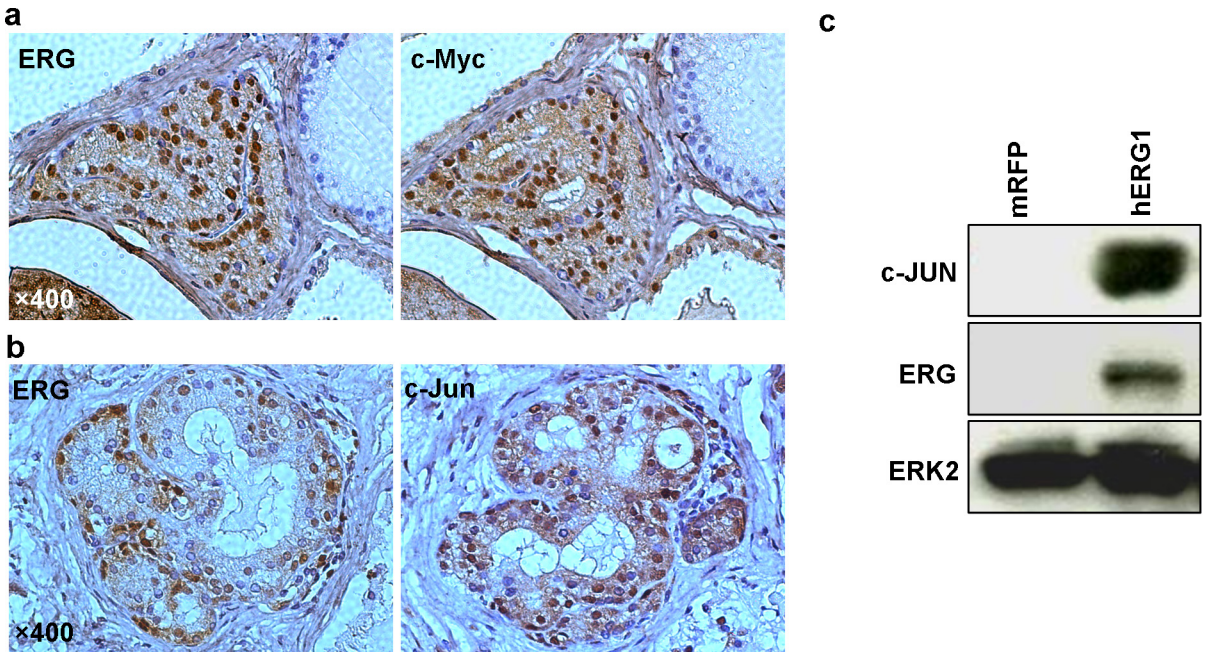

Fig. S2. Forced expression of ERG in murine prostate epithelial cells resulted in up-regulation of c-Myc and c-Jun protein. (*A*) Higher magnification views (400×) showing increased expression of c-Myc protein in the epithelial cells in *ERG*-transduced prostate tubules, as compared with the adjunct normal glands. (*B*) Up-regulation of c-Jun protein in ERG-overexpressing prostate glands. (*C*) Western blot analysis of *ERG*-transduced nurine prostate PEB1 cells confirms the significant increase in c-Jun expression upon ERG overexpression. Erk2 used as a loading control.

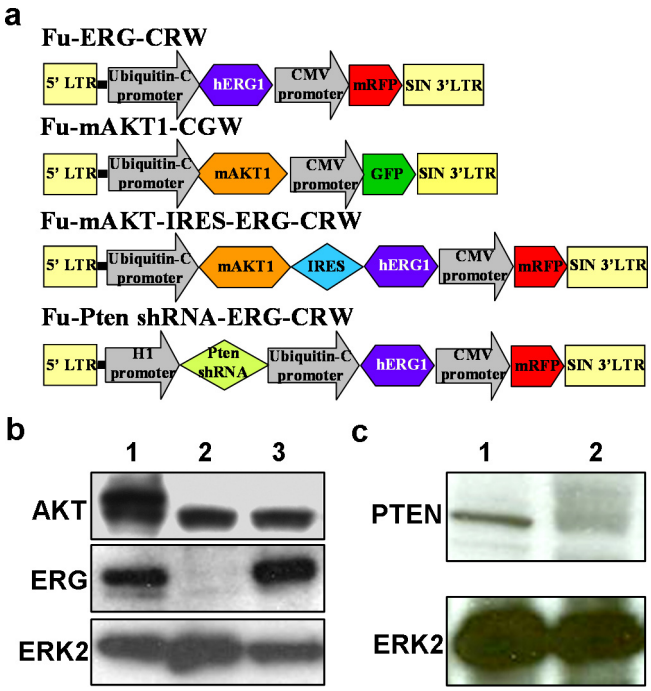

Fig. S3. Development and validation of lentiviral vectors. (*A*) The schematic maps of the self-inactivated (SIN) lentiviral vectors containing ERG, mAKT1, mAKT1-IRES-ERG, or Pten shRNA-ERG. (*B*) Immunoblotting analysis of AKT and ERG expression in 293T cells transduced with mAKT1-IRES-ERG vector (lane 1) or ERG lentivirus (lane 3), relative to *mRFP*-transduced cells (lane 2). (*C*) Western blot analysis reveals a significant decrease in Pten expression in PEB-1 cells transduced with Pten shRNA-ERG lentivirus (lane 2), in comparison with *mRFP*-transduced PEB-1 cells (lane 1). Erk2 used as a loading control.

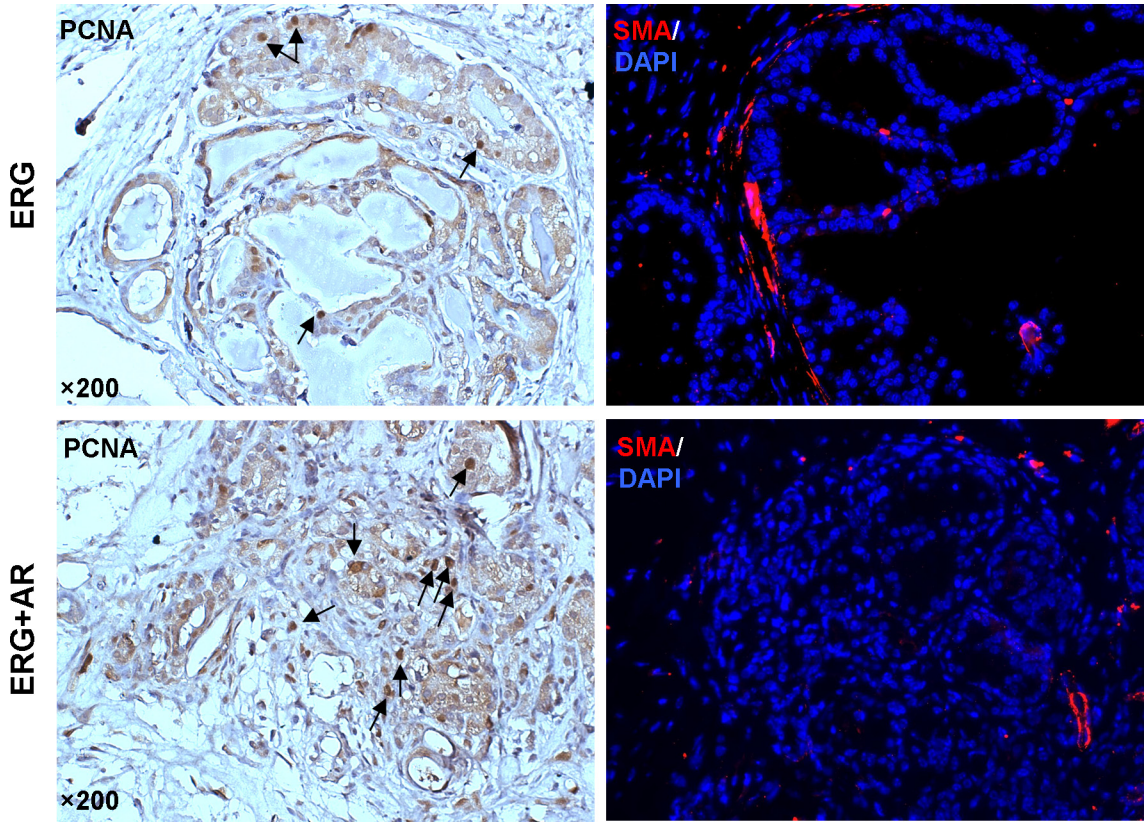

Fig. S4. Increased cell proliferation and local invasion in ERG/AR-induced prostate adenocarcinoma. (*Left*) IHC analysis with an anti-PCNA antibody reveals increased frequency of PCNA staining-positive cells in *ERG*/*AR*-transduced glands relative to *ERG*-transduced glands. (*Right*) The SMA staining is absent in *ERG*/*AR*-transduced prostate adenocarcinoma, in comparison with the presence of intact fibromuscular layer in *ERG*-transduced glands.

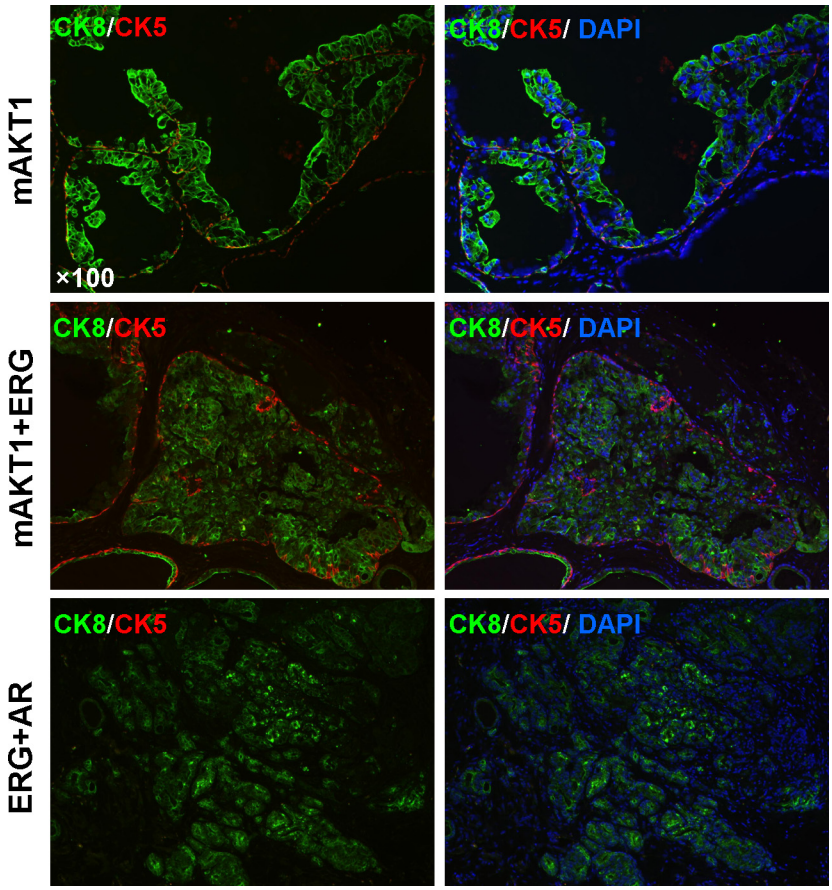

Fig. S5. Loss of CK5-positive basal epithelial cells in ERG/AR-induced prostate adenocarcinoma. IF analysis of CK5 and CK8 expression in regenerated tissues derived from prostate cells transduced with the indicated lentiviral vectors.