



Supplementary Materials

## Elimination of SOX2/OCT4-Associated Prostate Cancer Stem Cells Blocks Tumor Development and Enhances Therapeutic Response

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**Figure S1.** Comparison of CSC populations identified by the SORE6 reporter, ALDH and CD44/CD133. (**A**) A representative flow cytometry analysis of PC3 cells expressing SORE6-mCherry for ALDH activities. Top panel, SORE6-mCherry<sup>+</sup>; bottom panel, SORE6-mCherry<sup>-</sup>. The percentage of cells expressing high level of ALDH activities are indicated. (**B**) Quantitative data from three independent experiments showing percentage of SORE6<sup>-</sup> and SORE6<sup>+</sup> cells expressing ALDH. in a panel of PCa cells identified by flow cytometry. (**C-E**) Flow cytometry analysis of CD44 and CD133 expression in SORE6<sup>-</sup> and SORE6<sup>+</sup> PC3 cells. Representative flow cytometry plots are shown in C (SORE6<sup>-</sup>) and D (SORE6<sup>+</sup>). Quantitative data from three independent experiments showing percentage of SORE6<sup>+</sup> are shown in E.

## pAKT473





Figure S2: The original blots for Figure 5A. The cropped bands were indicated by boxes.



Figure S3: The original blots for Figure 5B. The cropped bands were indicated by boxes.

| Gene ID        | Average Log <sub>2</sub> Change | p Value     |
|----------------|---------------------------------|-------------|
| LINC00261      | 2.3000                          | 3.47E-08    |
| HSPB8          | 2.2710                          | 0.0000012   |
| SCNN1B         | 1.5185                          | 0.000143703 |
| KRT37          | 1.4521                          | 0.000000962 |
| DYNC1I1        | 1.2261                          | 0.000683332 |
| IGF2           | 1.1711                          | 0.00095664  |
| TUBB4A         | 1.1432                          | 0.000622161 |
| B4GALNT1       | 1.1341                          | 0.000485262 |
| PANX2          | 1.0928                          | 6.07E-18    |
| GALNT4         | 1.0173                          | 0.0000211   |
| PPFIA4         | 0.9922                          | 0.000032    |
| IFI27          | 0.9876                          | 0.0000508   |
| ALDOC          | 0.9673                          | 0.000407027 |
| FAM83A         | 0.9551                          | 1.68E-10    |
| LOC154761      | 0.9377                          | 7.17E-08    |
| SERPINE1       | 0.9348                          | 0.000383171 |
| KLK5           | 0.9266                          | 0.000292768 |
| FFR3B          | 0.9105                          | 6.21E-10    |
| CEACAM5        | 0,9006                          | 0 00049199  |
| MLI T11        | 0.8964                          | 8.04F-13    |
| CASP1/         | 0.8757                          | 5.98F-16    |
|                | 0.8675                          | 0.0000228   |
| I LAI<br>MADIR | 0.8675                          | 0.57E 27    |
| MAP1B<br>CD(8  | 0.8504                          | 9.37 E-37   |
| CD68           | 0.8594                          | 1.05E.09    |
|                | 0.8356                          | 1.05E-08    |
| SOD3           | 0.8356                          | 1.91E-22    |
| NDRGI          | 0.8355                          | 5.09E-11    |
| FLNC           | 0.8324                          | 2.16E-51    |
| RIMKLA         | 0.8273                          | 1.12E-25    |
| SICI           | 0.8180                          | 2.01E-10    |
| KCNAB2         | 0.8001                          | 0.0000313   |
| CEACAM6        | 0.7801                          | 5.76E-08    |
| HEPHL1         | 0.7795                          | 0.000526229 |
| BSCL2          | 0.7725                          | 0.0000213   |
| BNIP3          | 0.7702                          | 0.0000838   |
| MSMP           | 0.7594                          | 2.61E-19    |
| IL6            | -0.8332                         | 1.38E-16    |
| CYP1B1         | -0.8927                         | 5.4E-18     |
| TSPAN2         | -0.9127                         | 0.000798727 |
| VCAN           | -0.9506                         | 1.49E-15    |
| HIST2H2BF      | -0.9728                         | 0.0000448   |
| SYT12          | -0.9767                         | 0.000636366 |
| TRIM31         | -0.9972                         | 0.0000933   |
| FABP4          | -1.0309                         | 0.0000275   |
| IGFBP5         | -1.0993                         | 6.38E-17    |
| DHRS2          | -1.2561                         | 0.00000151  |
| CYP1A1         | -1.2565                         | 0.000928116 |
| TC2N           | -1.3446                         | 0.000447963 |
| HIST2H4B       | -1.3807                         | 0.00000391  |
| LOC105370526   | -1.5210                         | 0.000162024 |
| KCNK5          | -1.6045                         | 0.000814113 |
| MGP            | -1.9173                         | 7.19E-09    |
| SMIM11A        | -2.4297                         | 6.51E-11    |
| MS4A7          | -2.4700                         | 2.01E-11    |
| ARC            | -3.0136                         | 3 4E-24     |
| RRAD           | -3 4031                         | 0.00000121  |
|                | 0.1001                          | 0.00000121  |

 Table S1. Altered gene expression in SORE6<sup>+</sup> cells compared to SORE6<sup>-</sup> cells.



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