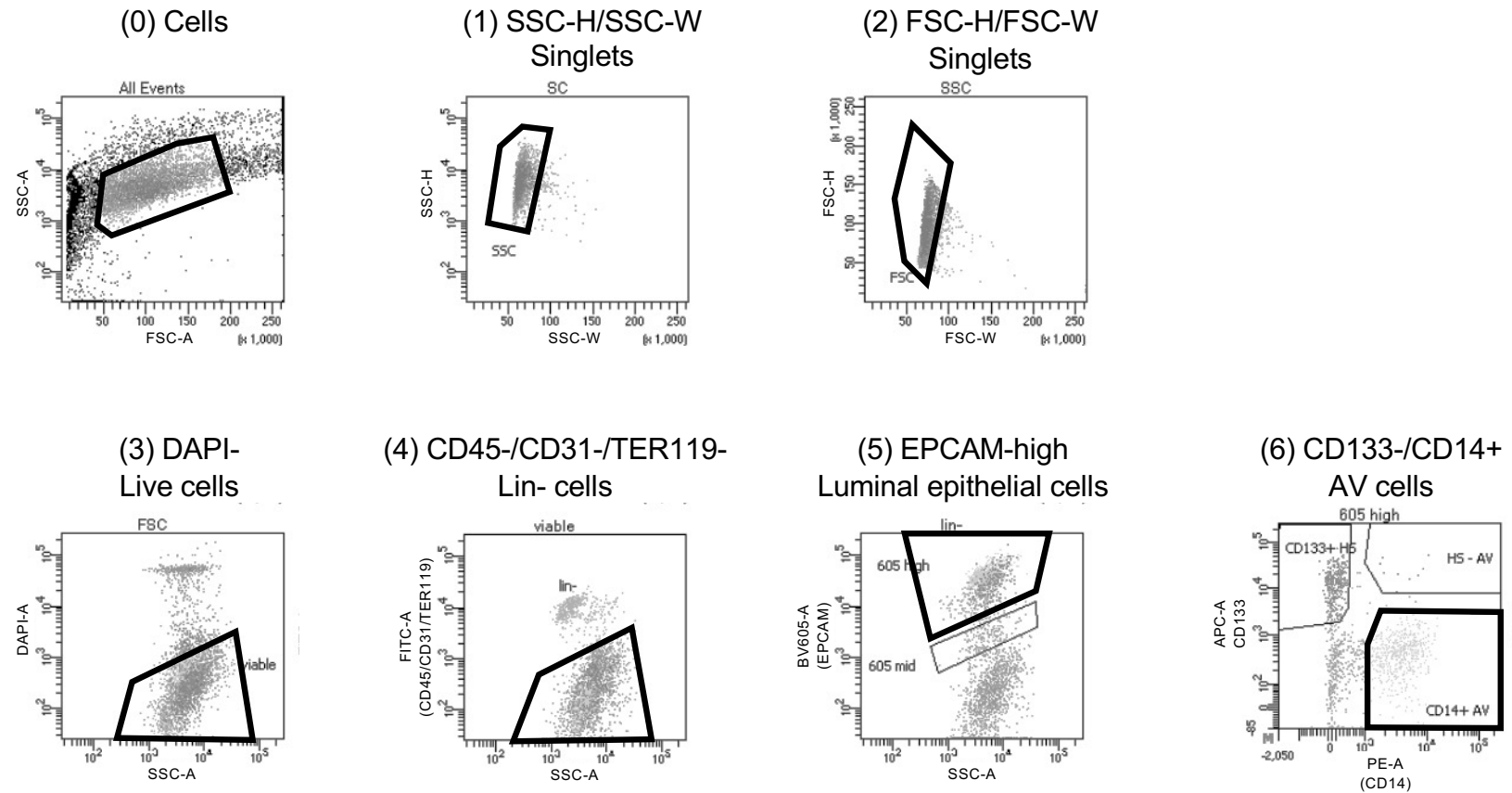


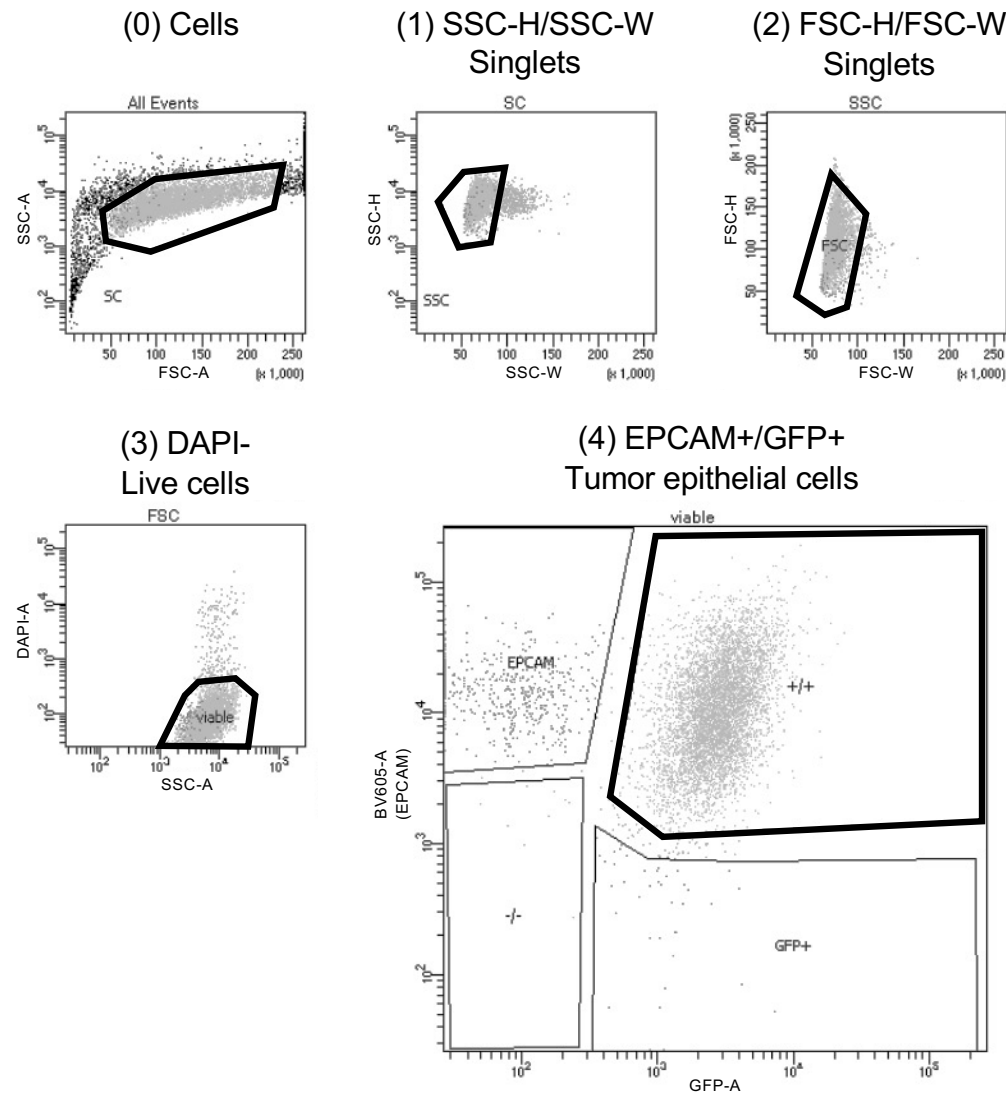
***Brca1* haploinsufficiency promotes early tumor onset and epigenetic alterations in a mouse model of hereditary breast cancer**

In the format provided by the
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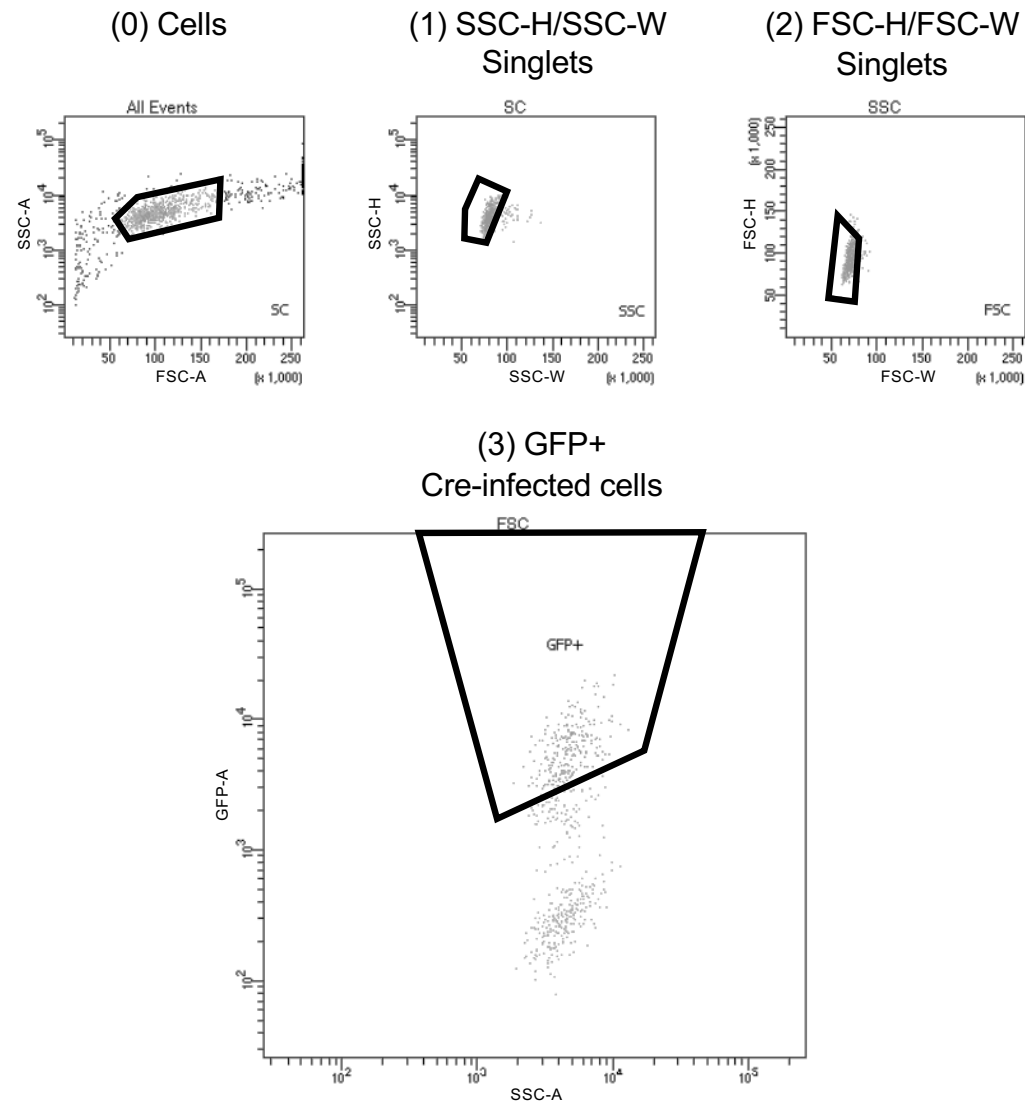
Supplementary Fig. 1 | Gating strategy for FACS purification of AV cells from mammary glands.

To isolate AV cells, mammary tissue-derived single-cells were incubated with CD16/32 antibody (eBioscience 16-0161) to block Fc receptor and with rat serum (eBioscience 24-5555) to block non-specific binding, and then stained for 30 minutes with DAPI (1 mg/mL) and the following antibodies: CD45-FITC (BioLegend 103108, 1:200), CD31-FITC (BioLegend 102405, 1:50), TER119-FITC (BioLegend 116205, 1:100), EPCAM-BV605 (BioLegend 118227, 1:100), CD133-APC (BioLegend 141207, 1:50), CD14-PE (BioLegend 150106, 1:50). Cell sorting was carried out on a BD FACS Aria II using the following gating strategy: SSC-H/SSC-W singlets, FSC-H/FSC-W singlets, DAPI- live cells, CD45-/CD31-/TER119- Lin- cells, EPCAM-high luminal epithelial cells, CD133-/CD14+ AV cells. (SSC-A, side scatter area; SSC-H, side scatter height; SSC-W, side scatter width; FSC-A, forward scatter area; FSC-H: forward scatter height; FSC-W: forward scatter width.)



Supplementary Fig. 2 | Gating strategy for FACS purification of tumor epithelial cells from mammary tumors.

To isolate GFP+ tumor epithelial cells, tumor tissue-derived single-cells were incubated with CD16/32 antibody (eBioscience 16-0161), rat serum (eBioscience 24-5555), DAPI (1 mg/mL), and EPCAM-BV605 antibody (BioLegend 118227, 1:100). Cell sorting was carried out on a BD FACSAria II using the following gating strategy: SSC-H/SSC-W singlets, FSC-H/FSC-W singlets, DAPI- live cells, EPCAM+/GFP+ tumor epithelial cells. (SSC-A, side scatter area; SSC-H, side scatter height; SSC-W, side scatter width; FSC-A, forward scatter area; FSC-H: forward scatter height; FSC-W: forward scatter width.)



Supplementary Fig. 3 | Gating strategy for FACS purification of GFP+ mammary epithelial cells after Cre infection to test Cre deletion efficiency by PCR genotyping.

Cre-infected, GFP-positive mammary epithelial cells were isolated by FACS on a BD FACS Aria II using the following gating strategy: SSC-H/SSC-W singlets, FSC-H/FSC-W singlets, GFP+ cells. (SSC-A, side scatter area; SSC-H, side scatter height; SSC-W, side scatter width; FSC-A, forward scatter area; FSC-H: forward scatter height; FSC-W: forward scatter width.)