SUPPLEMENTARY INFORMATION

Adhesion of pancreatic tumor cell clusters by desmosomal molecules enhances early liver metastases formation

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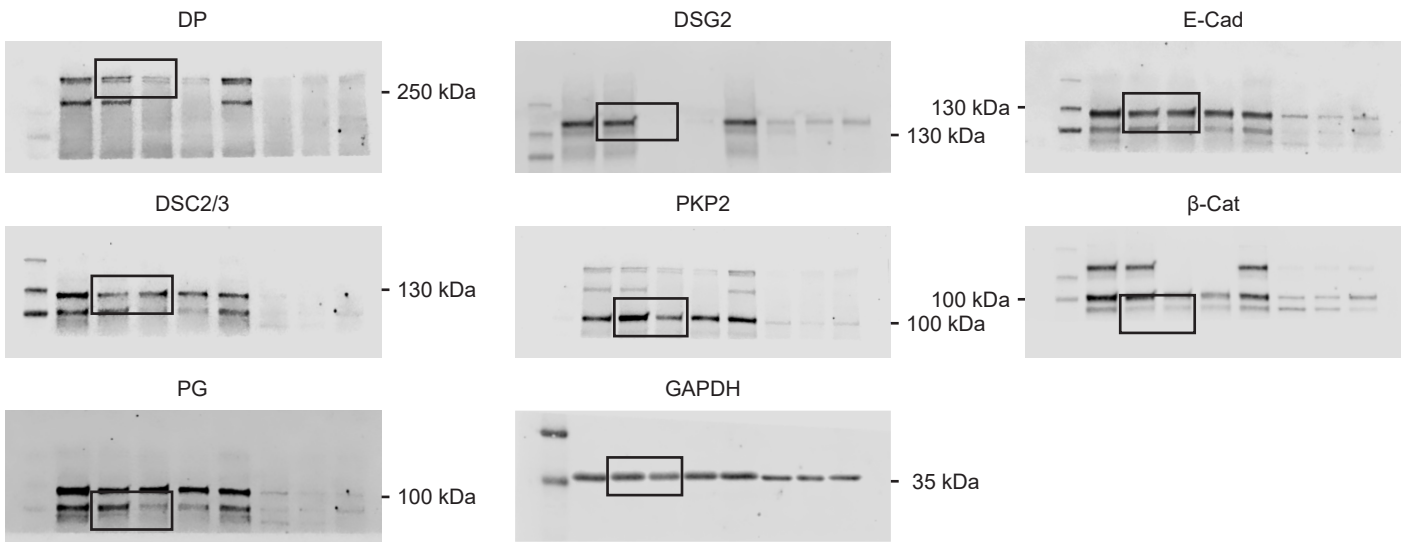[5] Hannover Medical School, Institute of Applied and Functional Anatomy, Hannover, Germany
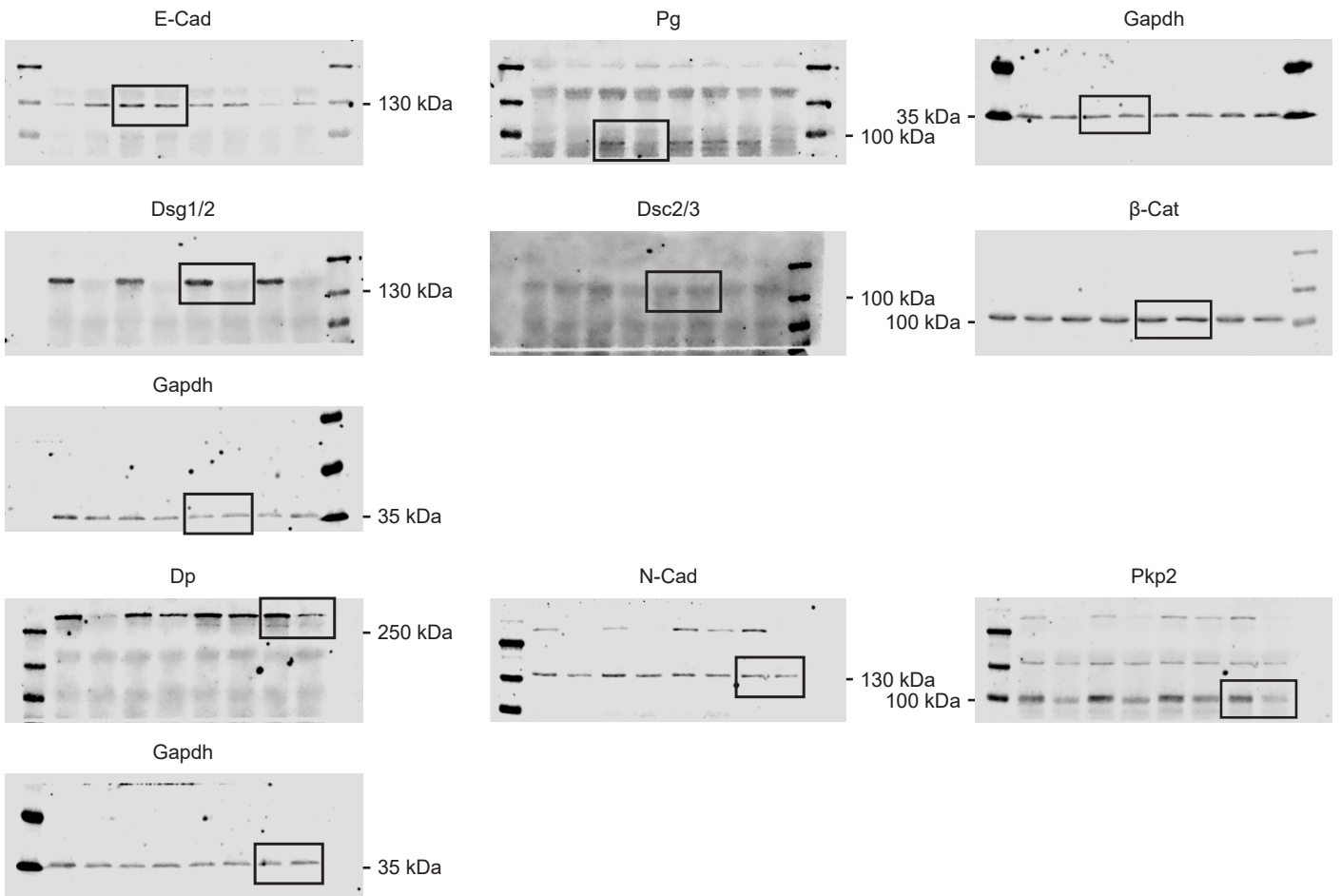
[†] These authors contributed equally.
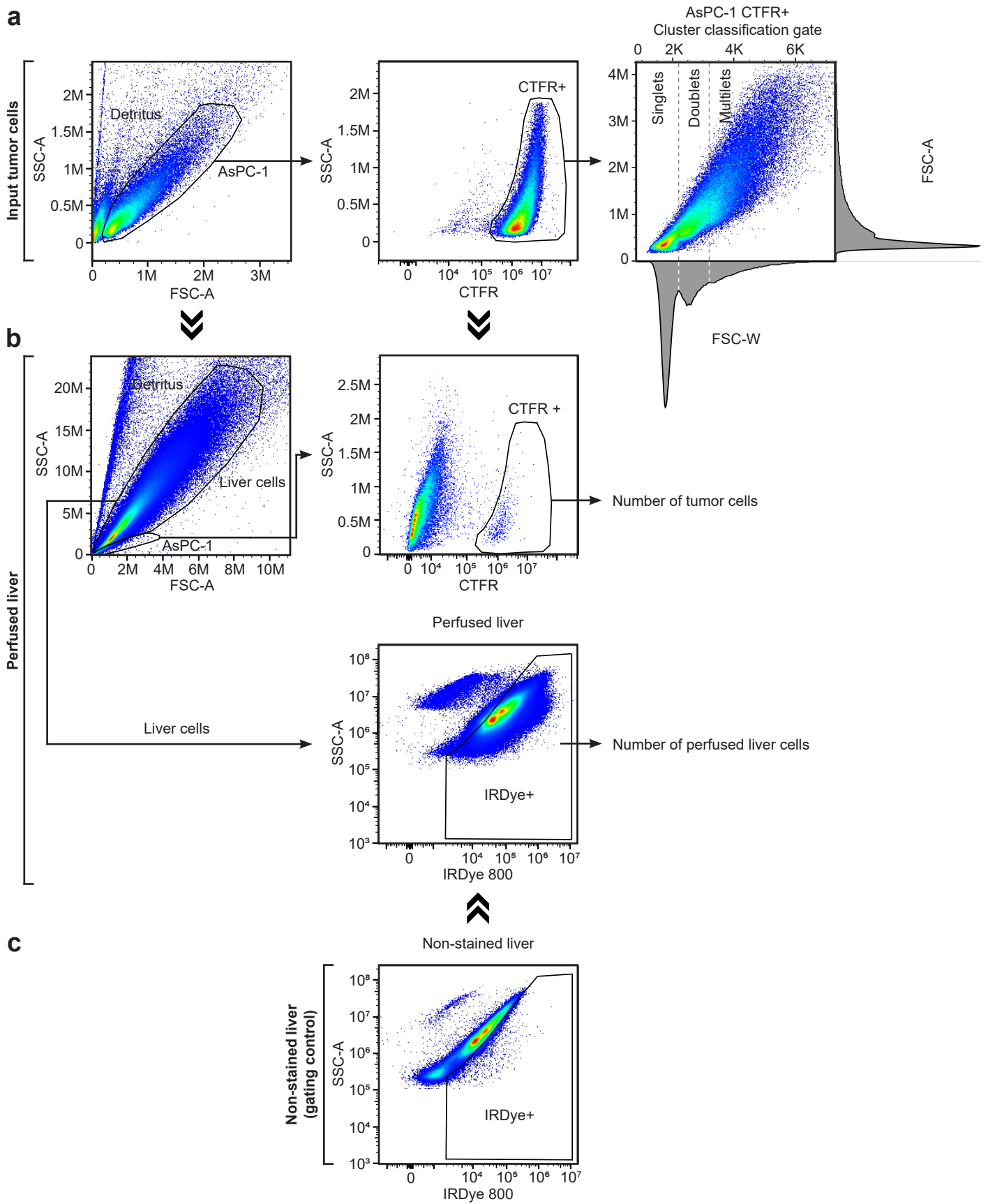
Supplementary Figure 1.

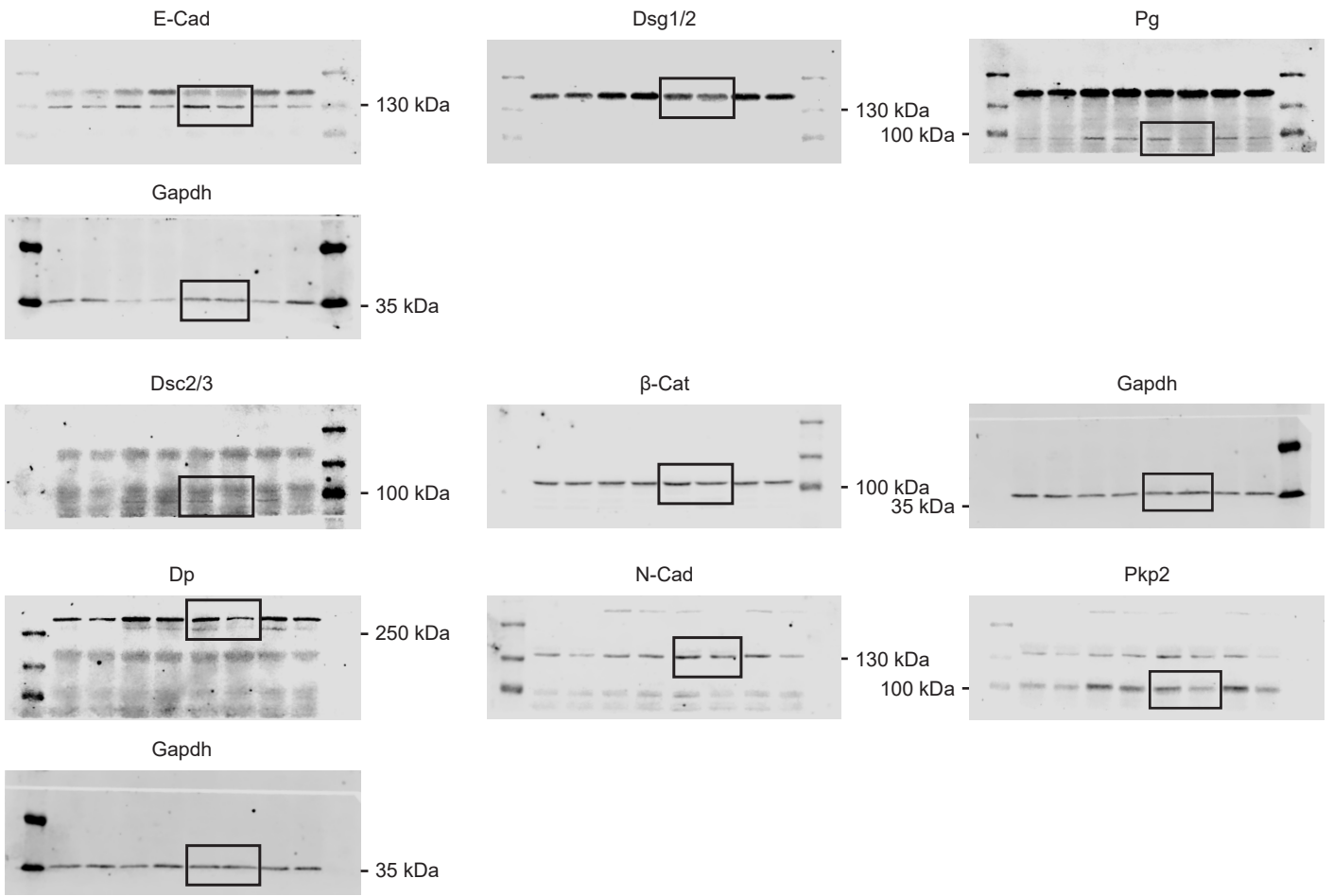**Supplementary Figure S1. Gating strategy of flow cytometry analysis**

a. Strategy to set gates to determine perfused AsPC-1 cells: In data from flow cytometry analysis of input AsPC-1 cells, a cell size gate (FSC vs SSC) was set to eliminate cell detritus. From this population, CellTrace Far Red (CTFR) stained AsPC-1 tumor cells were gated as a CTFR-positive population. To analyse clustering of these cells, the forward scatter width plot (FSC-W) was used to classify the AsPC-1 cells in singlets, doublets and multilets as indicated. Adjacent histograms indicate the relative frequency. **b.** Strategy to set gates to determine attached tumor cells per perfused liver cells: To depict the population of liver cells, the AsPC-1 cell size gate described in (a) was overlayed on the perfused mouse liver sample and the larger and more complex liver cells were gated in addition. For detection of the stained AsPC-1 cells in the liver sample, the same CellTrace Far Red gate described in (a) was applied. **c.** To determine the percentage of perfused liver cells, IRDye 800CW NHS Ester labeled cells were detected. For setting of the respective gates, a non-stained control liver sample was analyzed and a "non-perfused" cell gate was set to include 95% of the non-stained cells. The IRDye positive "perfused" cells gate was adjusted accordingly to include 5% of the non-stained cells.

DP

250 kDa

DSG2

130 kDa
130 kDa

E-Cad

130 kDa
130 kDa

DSC2/3

130 kDa

PKP2

100 kDa
100 kDa

β-Cat

100 kDa
100 kDa

PG

100 kDa

GAPDH

35 kDa

Figure 2a uncropped blots

E-Cad

130 kDa

Pg

100 kDa

Gapdh

35 kDa

Dsg1/2

130 kDa

Dsc2/3

100 kDa
100 kDa

β-Cat

100 kDa
100 kDa

Gapdh

35 kDa

Dp

250 kDa

N-Cad

130 kDa

Pkp2

130 kDa
100 kDa

Gapdh

35 kDa

Figure 3a uncropped blots Dsg2 KO mouse model

Figure 3a uncropped blots Dsc2 KO mouse model