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Supplementary information

Notch signalling drives synovial fibroblast identity and arthritis pathology

In the format provided by the authors and unedited

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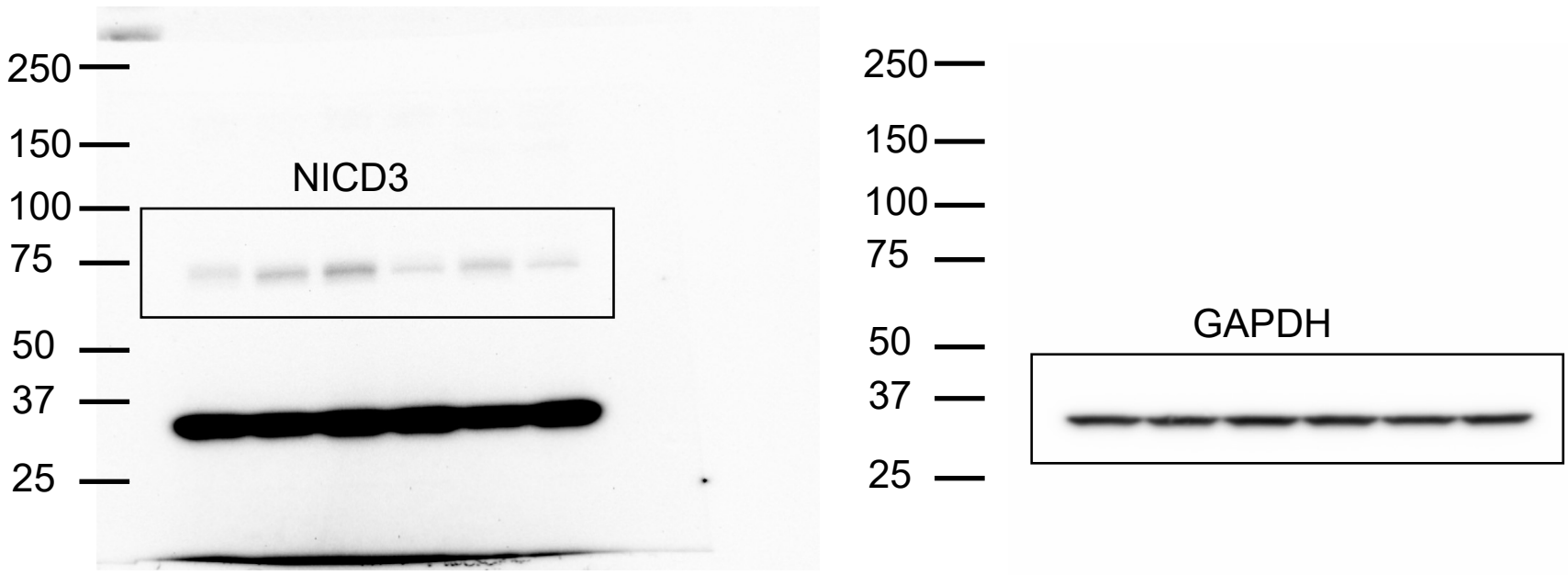
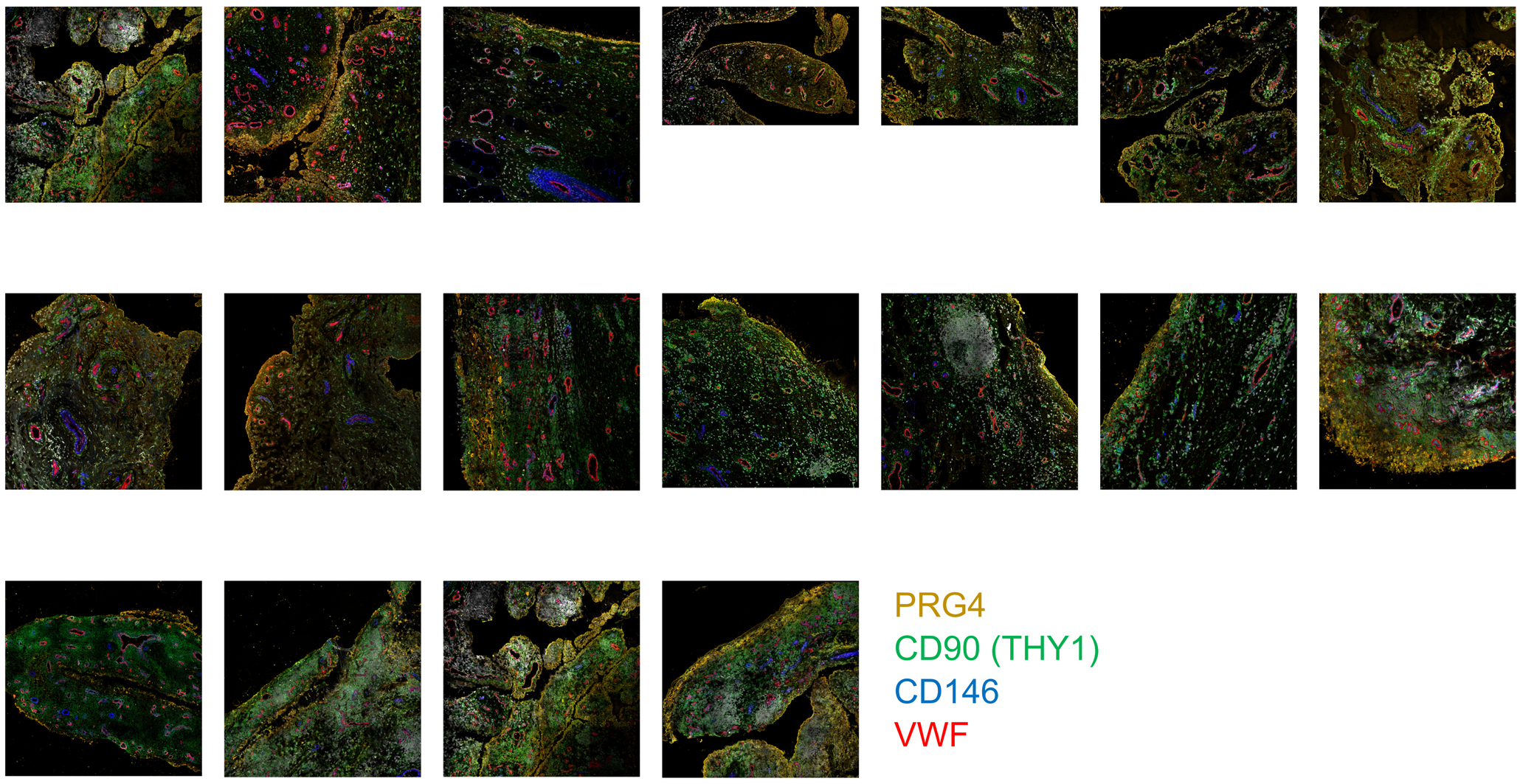
Extended Data Figure 4f



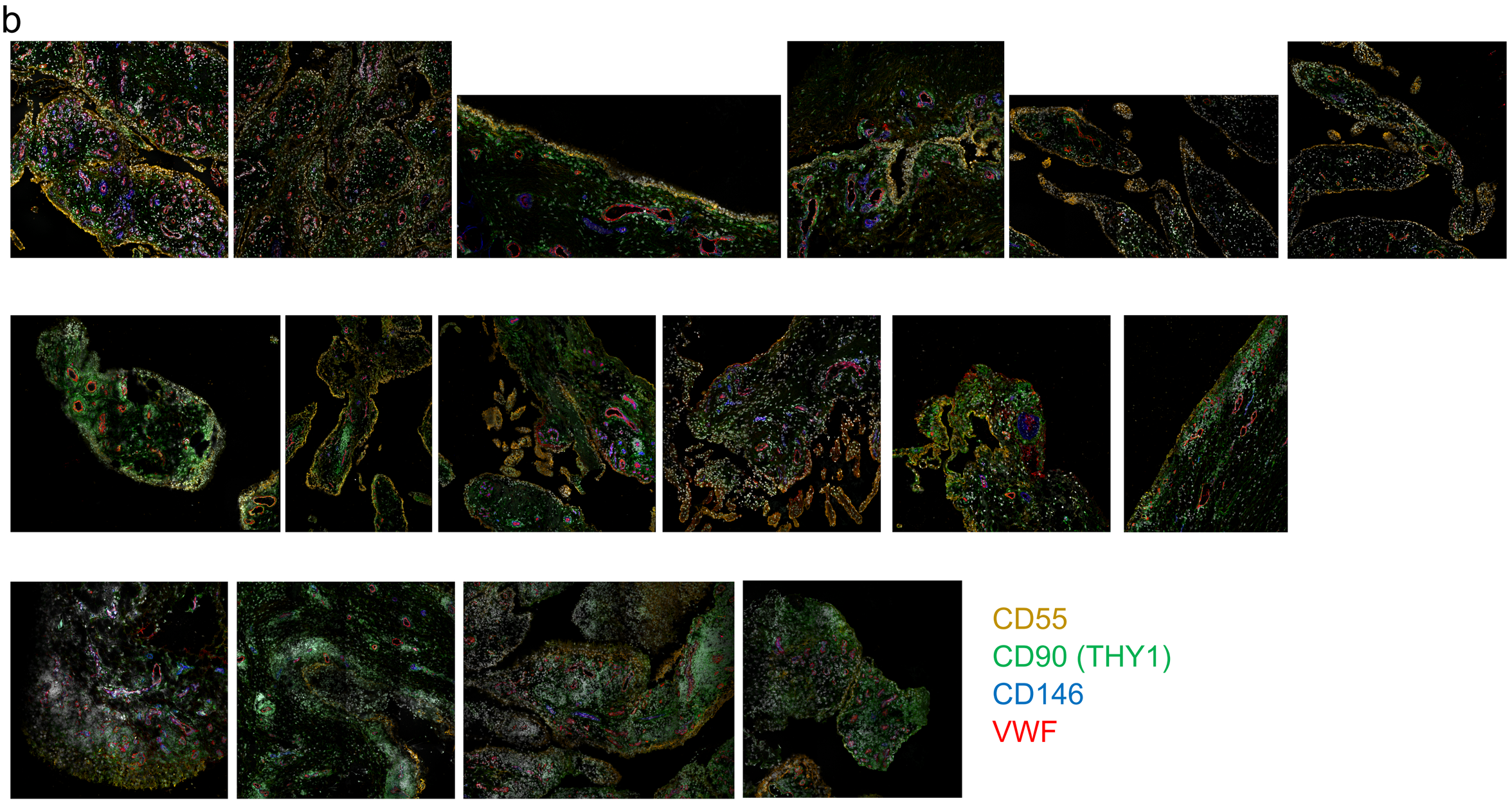
Control (GAPDH) was run on the same gel

Supplementary Data 1. Uncropped scans and size marker indications. Control (GAPDH) were run the same gel as sample processing controls.

a

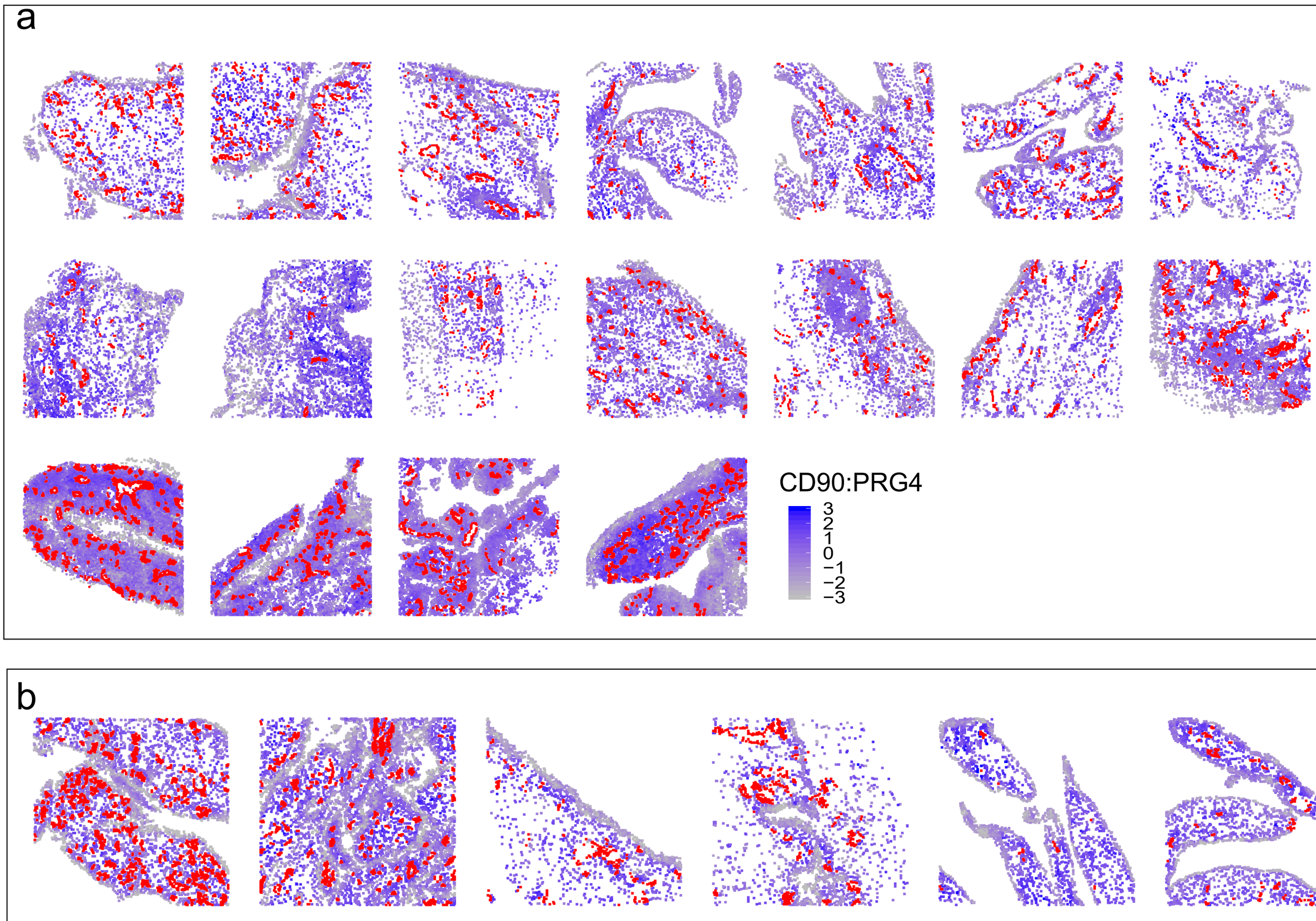


b

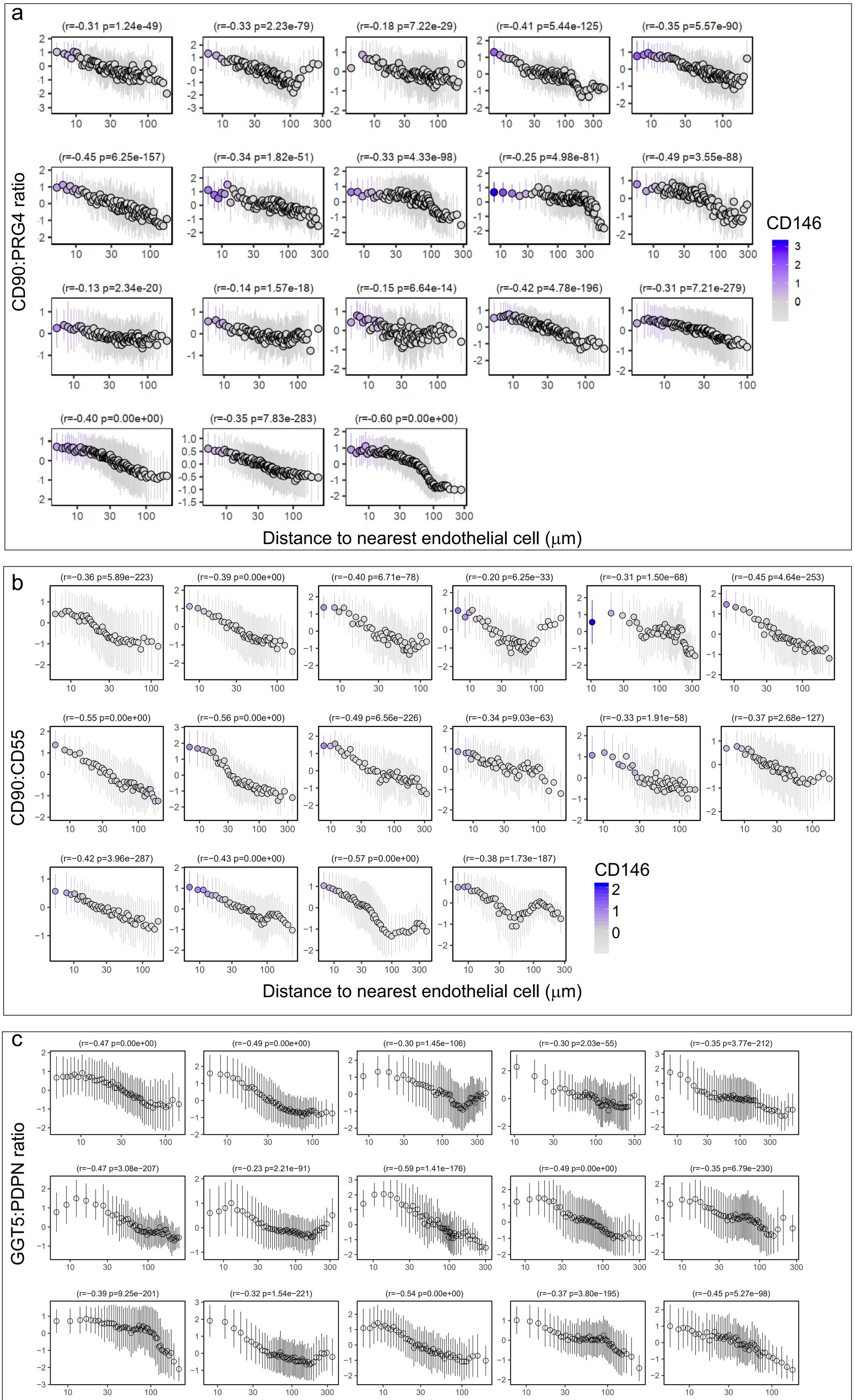


c

Supplementary Data 2. Individual confocal microscopy images used in spatial analysis. a, Immunofluorescence staining of PRG4 (yellow), CD90 (green), CD146 (blue), and VWF (red) in synovial tissues. b, Immunofluorescence staining of CD55 (yellow), CD90 (green), CD146 (blue), and VWF (red) in synovial tissues. c, Immunofluorescence staining of GGT5 (green), CD31 (blue), and PDPN (red) in synovial tissues.



Supplementary data 3. Individual images of fibroblast positional marker intensity. Confocal images (Supplementary Figure 2) were processed with Definiens software to segment cells and output their spatial location. In all images, cells labeled as endothelial cells are coloured in red. Ratio of fibroblast positional markers are shown as grey to blue for CD90:PRG4(a), CD90:CD55(b), and GGT5:PDPN (c).



Supplementary data 4. Spatial correlation between distance to endothelial cells and fibroblast positional marker intensity. Spatial correlation between CD90:PRG4 (a), CD90:CD55 (b), or GGT5:PDPN (c) and distance from nearest endothelial cells. Fibroblasts in each image (Supplemental Figure 3) were used to analyze the function between distance to nearest endothelial (y-axis) and positional marker intensity ratio (x-axis). Spearman correlation values and significance were computed with the base R cor.test function. Cells were binned by frequency into groups of 50 cells along the x-axis and summarized by their mean (dot) and standard deviation (line). In a-b, cells are coloured by the log intensity of CD146.