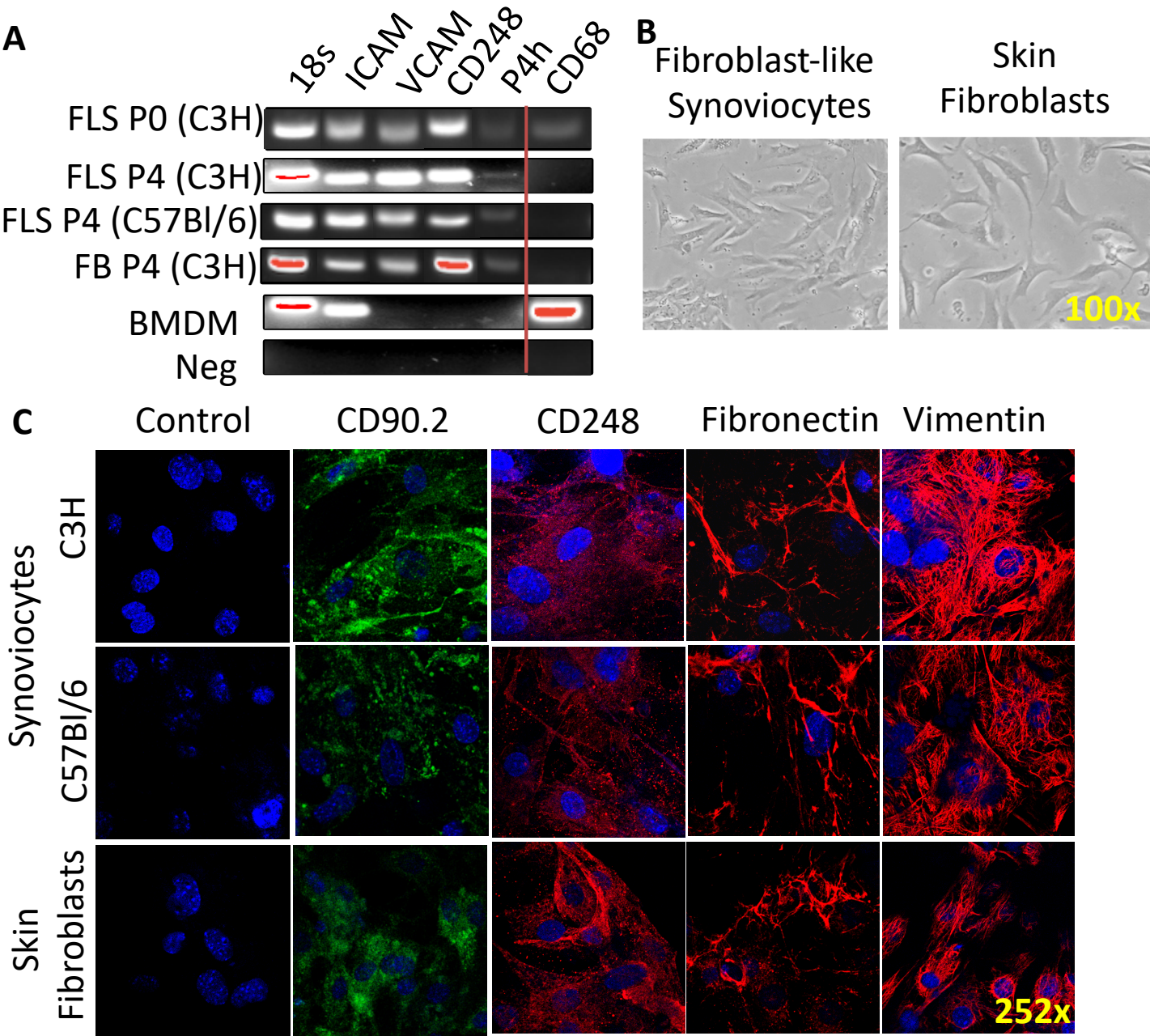


Figure S1**Cell type identification**

Hip synovium from naïve C3H/HeN or C57Bl/6 mice and ear/tail tissues from naïve C3H/HeN mice were collected and FLS and skin Fibroblasts were extracted respectively. Cells were culture for one (P0) or four (P4) passages. (A) RNA was collected and the gene expression pattern associated with fibroblasts (Intercellular Adhesion Molecule: ICAM, Vascular Cell Adhesion Protein: VCAM, Endosialin: CD248 and Prolyl 4-hydroxylase: p4h) or monocytes (CD68) was then measured by PCR on cDNA (Fibroblast-like synoviocytes: FLS, Fibroblast: FB, Bone marrow derived macrophages: BMDM). Alternatively, cells were observed by light microscopy (B) or were fixed, stained with markers associated to fibroblasts (CD90.2, CD248, fibronectin and vimentin) or with isotype control (Control) and observed by confocal microscopy (C). Representative pictures of the staining observed on the entire slide are presented here.

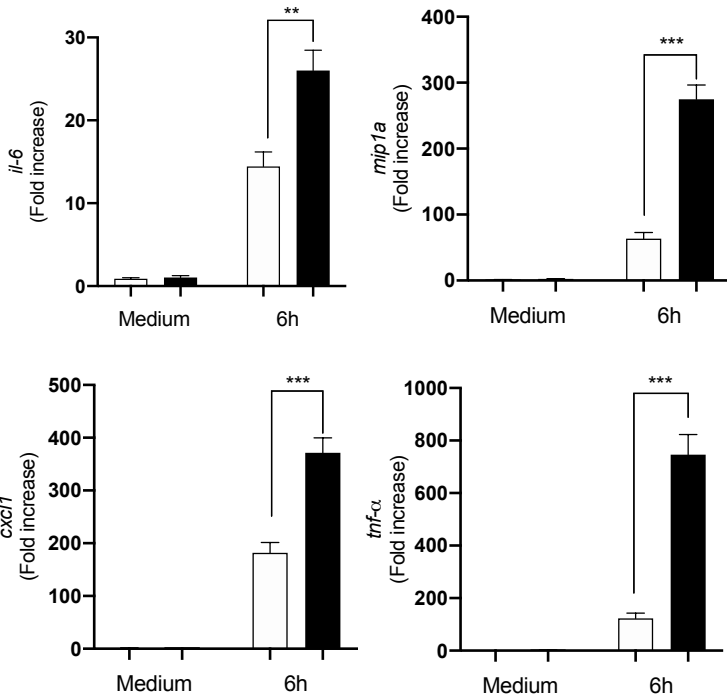
Figure S2

Fibroblast-like Synoviocytes

Skin Fibroblasts

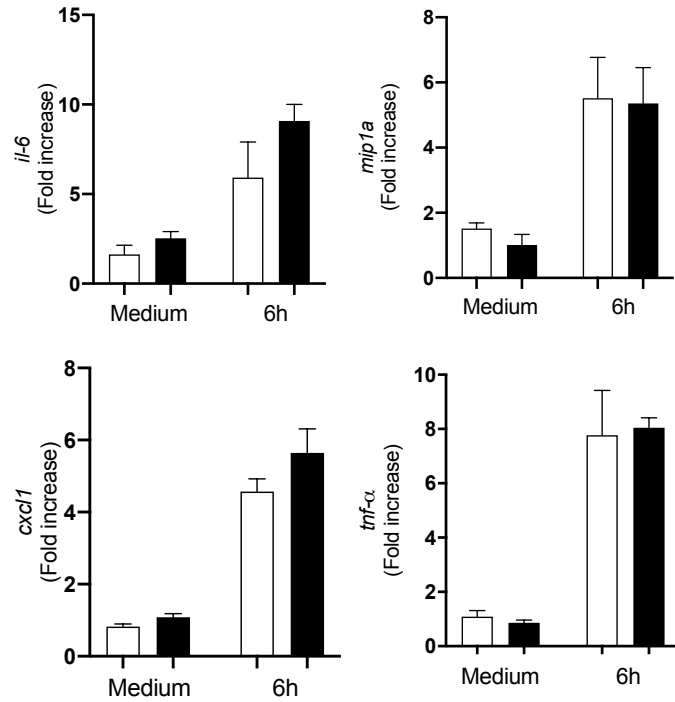
A

Naive Infected



B

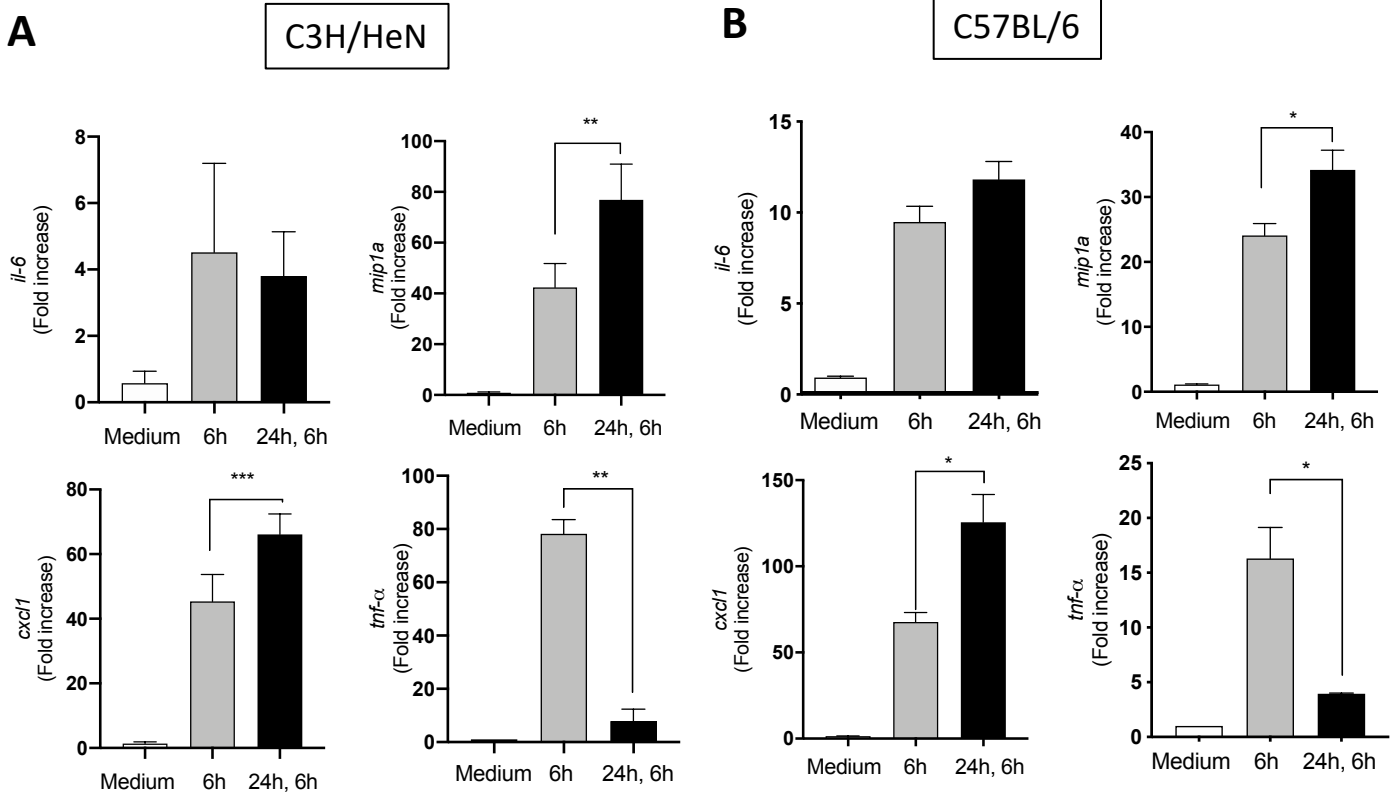
Naive Infected



FLS but not FBs from C3H/HeN mice infected with *B. burgdorferi* have a trained phenotype at the mRNA level

Hip synovium and ears from naïve or eight weeks *B. burgdorferi*-infected C3H/HeN mice were collected and FLS (A) and FBs (B) were extracted. Cells were culture for three to five passages before being seeded on a plate. *B. burgdorferi* were then added at a MOI of 10 for six hours. Cells were collected and cytokines (IL-6, MIP1a, CXCL1 and TNF-a) expression was measured by qPCR. Bars represent the mean \pm SEM of at least triplicates. Data are representative of two independent experiments conducted with three animals in each group. **P < 0.01; ***P < 0.001.

Figure S3



FLS from C3H/HeN and C57BL/6 mice share the same phenotype at the mRNA level

Hip synovium from naïve C3H/HeN (A) or C57BL/6 (B) mice were collected and FLS were extracted. Cells were culture for three to five passages before being seeded on a plate. *B. burgdorferi* were then added at a MOI of 10 for 24 hours. Cells were washed with PBS and fresh *B. burgdorferi* were added to the cells at a MOI of 10 for six hours. Cells were collected and cytokines (IL-6, MIP1a, CXCL1 and TNF-α) expression was measured by qPCR. Bars represent the mean \pm SEM of at least triplicates. Data are representative of at least three independent experiments. *P < 0.05; **P < 0.01; ***P < 0.001.