

Supplemental Material**Supplemental Table 1.** Forward and reverse primer sequences used for RT-PCR.

Gene Name	Gene ID	Accession #	Sequence
IFN-γ	15978	NM_008337	F: TTGGCTTTGCAGCTCTTCCT R: TGACTGTGCCGTGGCAGTA
IL-12Rβ2	16162	NM_008354	F: CAAGCATTTCATCGCTATCA R: TTGCCGGAAGTAACGAATTGA
CCR5	12774	NM_009917	F: GTCAAACGCTTTTGCAAACG R: TGAGCTTGCACGATCAGGATT
IL-18	16173	NM_008360	F: CACATGCGCCTTGTGATGAC R: TGCAGCCTCGGGTATTCTGT
IL-17a	16171	NM_010552	F: CCTGGCGGCTACAGTGAAG R: TTTGGACACGCTGAGCTTTG
IL-2	16183	NM_008366	F: AAATAAAGGGCTCTGACAACACA R: CACCACAGTTGCTGACTCATCA
IL-4	16189	NM_021283	F: GGTCTCAACCCCAGCTAGT R: GCCGATGATCTCTCTCAAGTGAT
IL-13	16163	NM_008355	F: TTGAGGAGCTGAGCAACATCAC R: CCATGCTGCCGTTGCA
IL-5	16191	NM_010558	F: TGCACTTGAGTGTTCTGACTCTCA R: TGTGCTCATGGGAATCTCCAT
IL-33	77125	NM_001164724	F: ACCAGGTGCTACTACGCTACTATGAG R: CACACCGTCGCCTGATTG
TGF-β	21803	NM_011577	F: GCAGTGGCTGAACCAAGGA R: AGCAGTGAGCGCTGAATCG
IL-10	16153	NM_010548	F: GATGCCCCAGGCAGAGAA R: CACCCAGGGAATTCAAATGC

Supplemental Figure Legends

Figure S1. (A) Representative M-mode echocardiograms and quantitative group data for LV ejection fraction (EF), end-diastolic volume (EDV), and end-systolic volume (ESV) from heart failure (HF) and sham mice 8 w after permanent coronary ligation or sham surgery (n = 5-6 per group). **(B)** Representative gross images of a sham-operated and failing heart, and group gravimetric data for heart, and wet lung weights. **(C)** Representative gross image of spleens isolated from a HF and sham mouse and group quantitation of organ weight, and total cell counts for CD45⁺ leukocytes and CD3⁺ T-cells per spleen. All weights normalized to tibia length (n = 4-6 per group).

Figure S2. (A) Representative flow cytometry scatter plots for CD3⁺CD4⁺ helper and CD3⁺CD8⁺ cytotoxic T-cells and group quantitation of CD8⁺ T-cell frequency in the circulation at different time intervals post-MI, and absolute cell counts at 8 w post-MI (HF) or sham surgery. **(B)** Representative confocal microscopy images of CD8⁺ T-cells (*green*) in sham-operated and failing hearts (8 w post-MI) and group quantitation. **(C)** Representative flow cytometry density plots and group quantitation of CD3⁺CD8⁺ T-cells in hearts, **(D)** spleens, and **(E)** lymph nodes (LNs) isolated from sham-operated and HF mice (n = 5-10).

Figure S3. (A) Example gross images of heart-draining mediastinal lymph nodes (LNs) from a sham-operated and HF mouse (*Inset*), along with flow cytometry scatter plots for live cell SSC/FSC gate and CD3⁺CD4⁺ helper and CD3⁺CD4⁺Foxp3⁺ regulatory T-cells in mediastinal LNs and **(B)** corresponding group quantitation. **(C)** Group quantitation of the frequency and absolute number of CD4⁺ T-cell LN subsets: Th1 (IFN- γ ⁺), Th2 (IL-4⁺), and Th17 (IL-17⁺) (n = 4-6 per group).

Figure S4. Group quantitation of baseline end-diastolic and end-systolic volume (EDV and ESV), and ejection fraction (EF) in HF mice 4 w post-MI prior to randomization to treatment with either isotype IgG or anti-CD4 antibody (n = 6-10 per group).

Figure S5. Naïve mice were adoptively transferred with cardiac CD3⁺ T-cells sorted from either naïve control or HF mice and followed for 8 w, as outlined in Figure 6A. **(A)** Quantitative group data for changes in LVEF, EDV, and ESV, in recipient mice 4 and 8 w after cardiac CD3⁺ T-cell transfer, along with measured septal and posterior wall (PW) thickness at 8 w. **(B)** Gravimetric data for the same experimental groups at 8 w after transfer. Representative Masson's trichrome stains and quantitation of fibrosis **(C)**, and wheat germ-agglutinin stains (cell membranes green, nuclei blue with DAPI counterstain; scale bar 200 µm) and quantitation of myocyte size **(D)** in mouse hearts 8 w after transfer of naïve control or HF-activated cardiac CD3⁺ T-cells. Arrows indicate representative myocytes used for measurement of cross-sectional area.

Figure S1

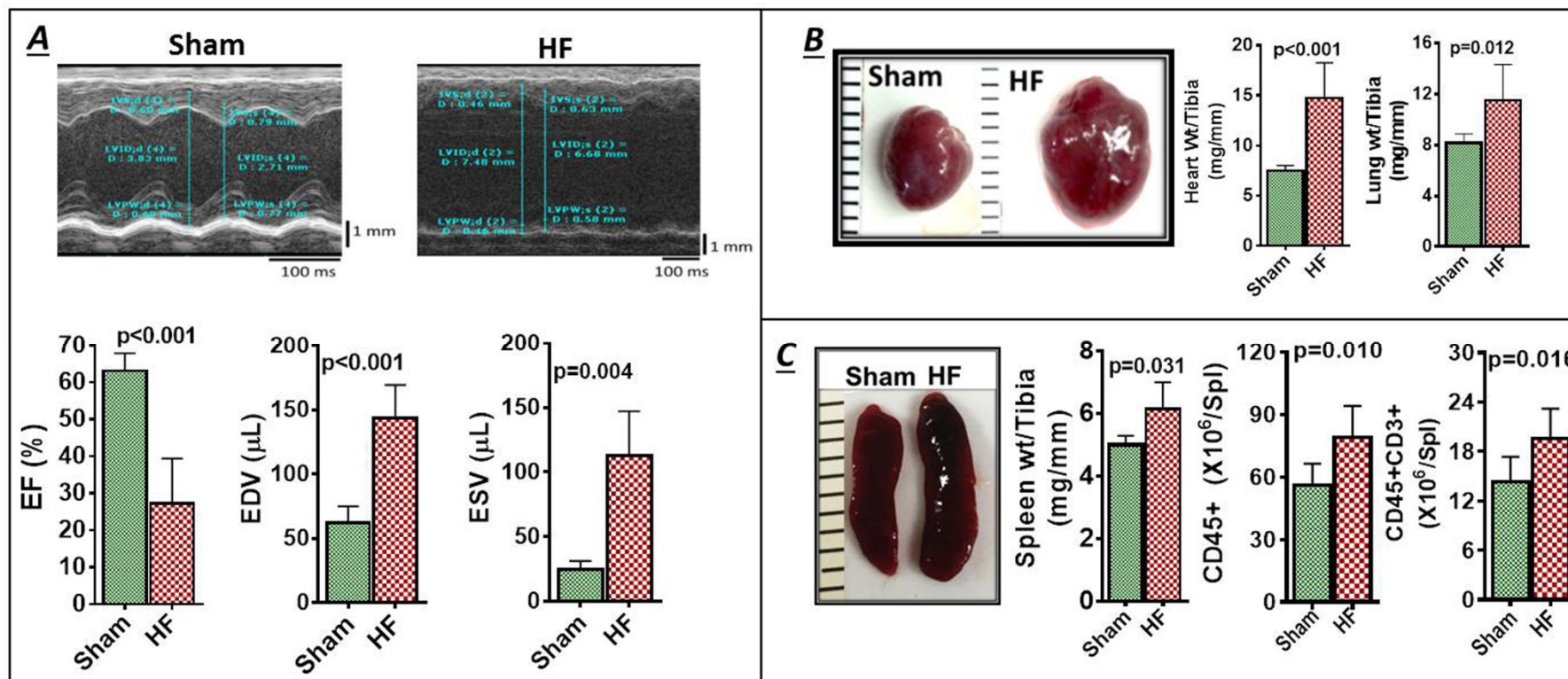


Figure S2

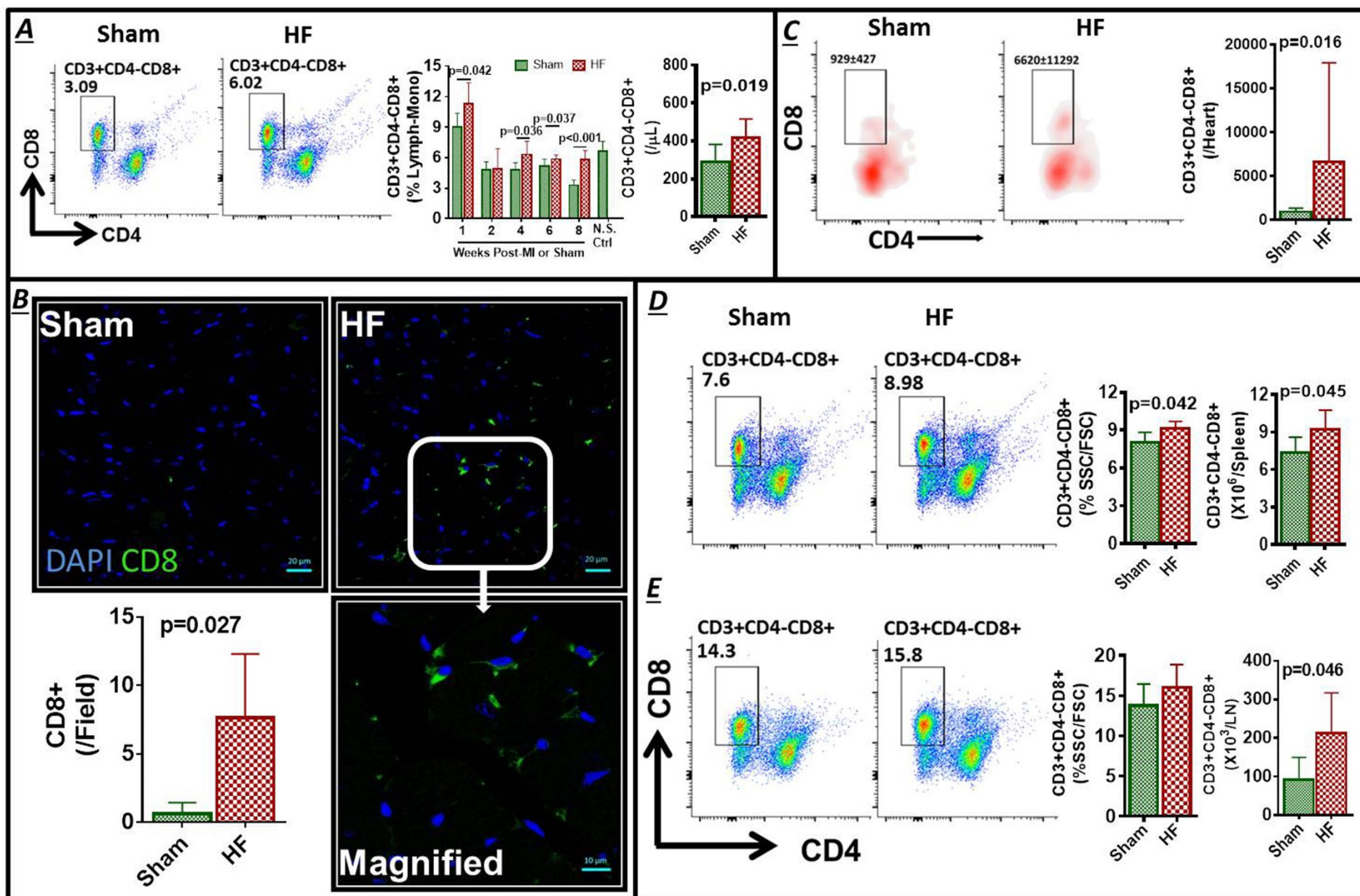


Figure S3

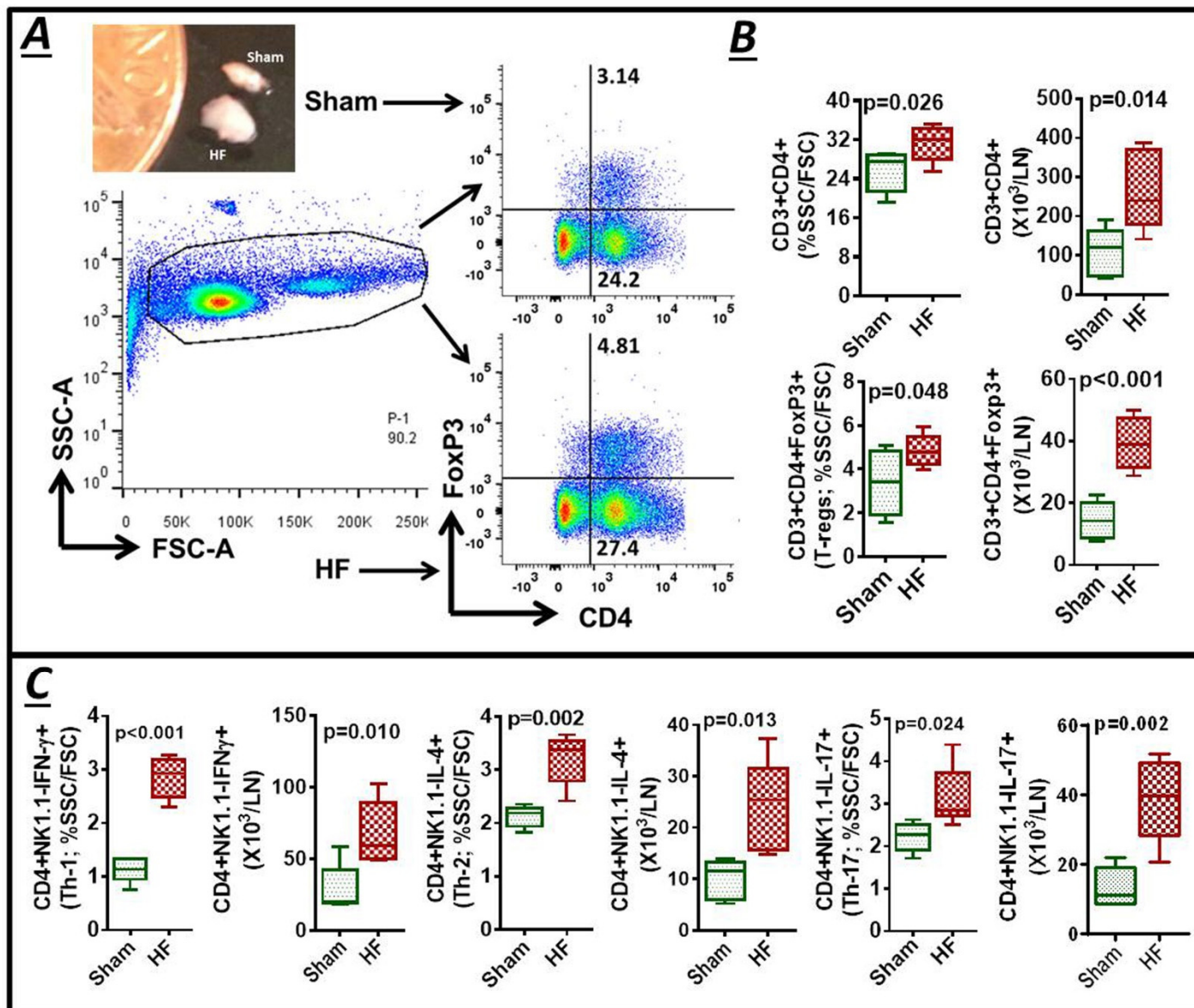


Figure S4

Baseline LV parameters prior to antibody treatment

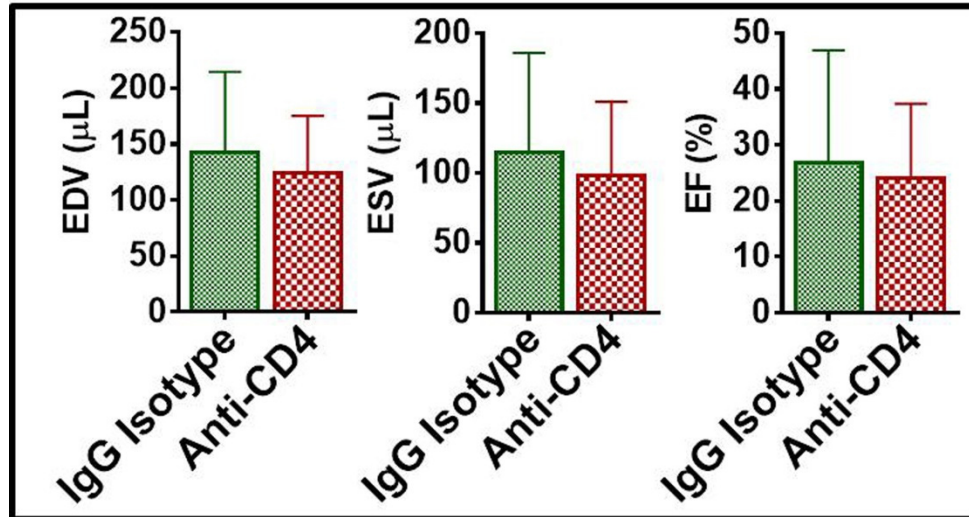


Figure S5

