Supplemental Materials

Supplementary figure I
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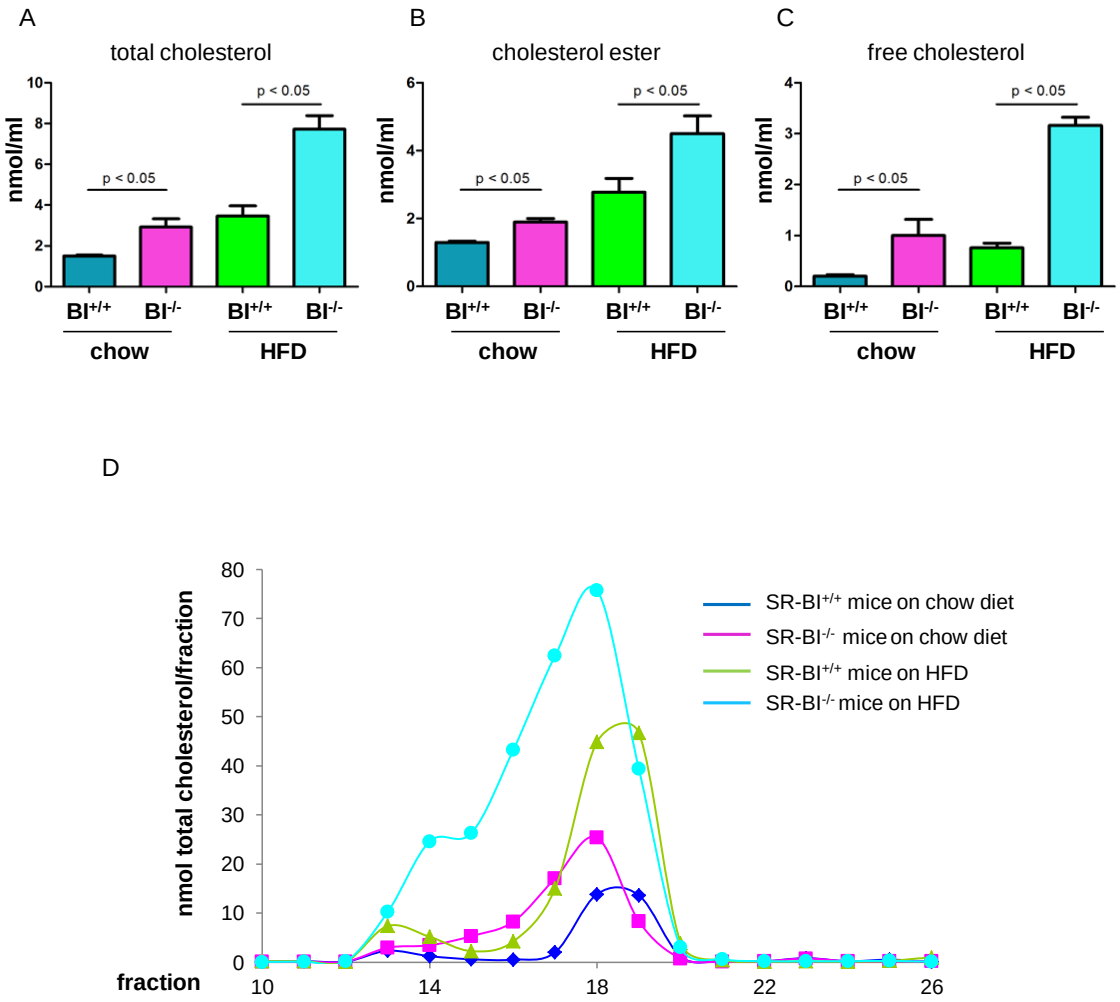
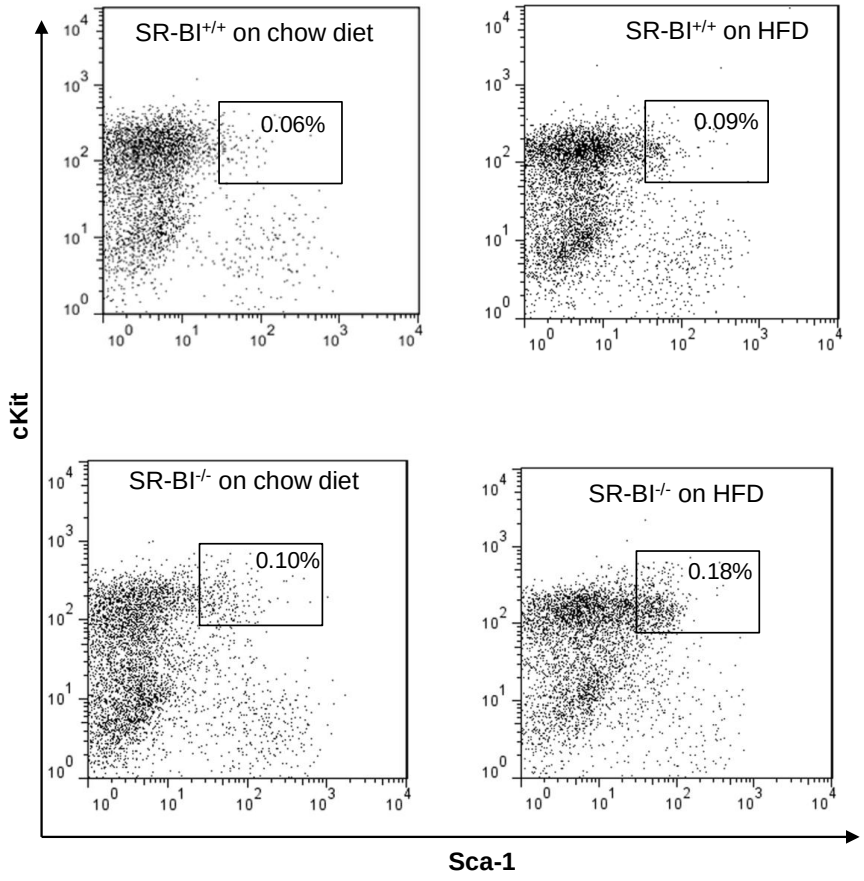
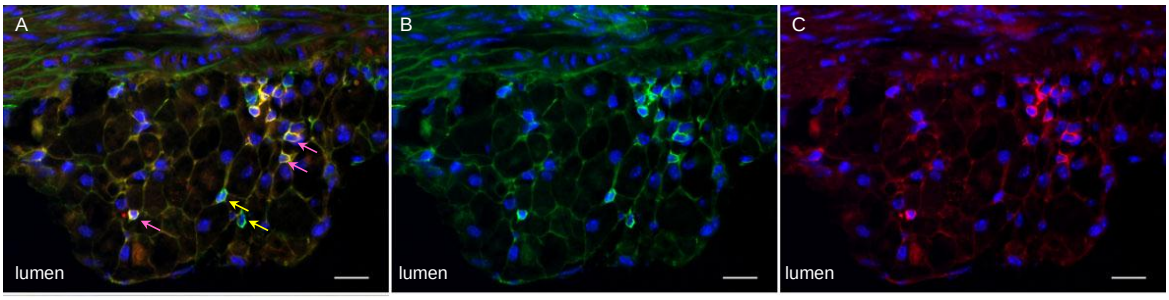


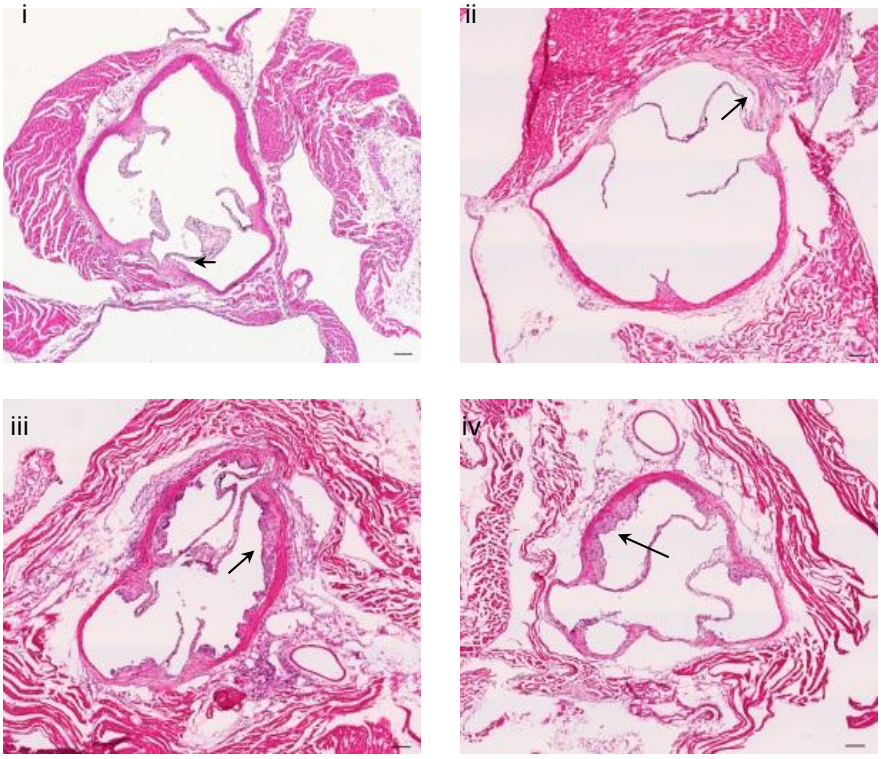
Supplementary figure I. Cholesterol and lipoprotein profiles of SR-BI$^{+/+}$ and SR-BI$^{-/-}$ mice on diet. SR-BI$^{+/+}$ and SR-BI$^{-/-}$ mice were fed on chow of high fat diet (HFD) for 8 weeks. Plasma samples were collected after overnight fasting. Total cholesterol, free cholesterol and cholesterol ester levels are shown in A, B and C, respectively. (D) Plasma of wt and ko mice on chow and HFD was separated by FPLC and cholesterol content in lipoproteins was quantified. CWT: wt mice on chow diet; CSR: ko mice on chow diet; HWT: wt mice on HFD; and HSR: ko mice on HFD. n=5 for each group.



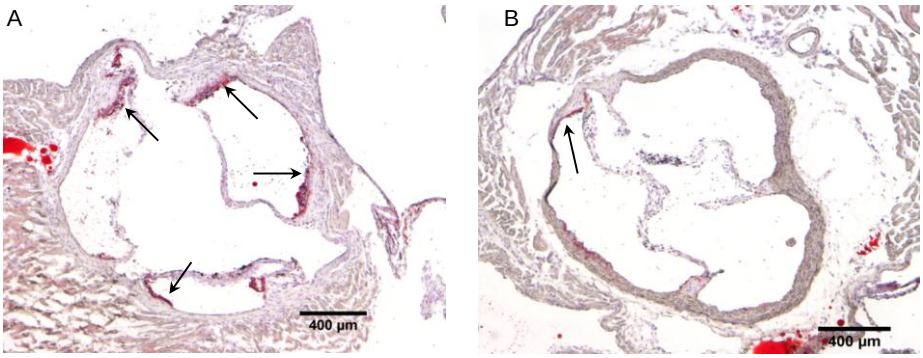
Supplementary figure II. HSPC frequency in SR-BI$^{+/+}$ and SR-BI$^{-/-}$ mice on chow and high fat diet. Representative dot plots demonstrating the analysis of LSK cells in BMC. SR-BI$^{+/+}$ and SR-BI$^{-/-}$ mice were fed on chow or HFD for 8-10 weeks. BMCs were stained with anti-Lineage APC, anti-Sca-1 PerCP-Cy5.5 and anti-cKit APC-H7 antibodies. LSK cells were quantified by FACS. LSK frequency in BMC are illustrated.



Supplementary figure III. Identification of donor-derived inflammatory cells in atherosclerotic plaque. Cryosections were stained with biotin-CD45.2 and rat anti-mouse CD45 overnight and then streptavidin 555 and goat anti-rat Alexa 488. (A). Yellow arrows indicate cells derived from CD45.1 donor, whereas, red arrows indicate cells from CD45.2 donor. (B) CD45+ cells are shown in green and (C) CD45.2+ cells are shown in pink. Scale bar: 20 µm.



Supplementary figure IV. The effect of human apoA-I injection on atherosclerosis. SR-BI$^{-/-}$ and LDLr$^{-/-}$ apoA-I$^{-/-}$ (DKO) mice were fed on HFD and subcutaneously injected with saline or human apoA-I. Representative H&E stained aortic roots of SR-BI$^{-/-}$ mice that received saline (i) or human apoA-I injection (ii). As positive controls, aortic roots of DKO mice treated with saline (iii) or human apoA-I (iv). Scale bar: 200 μm.



Supplementary figure V. The effect of NAC injection on atherosclerosis in SR-BI$^{-/-}$ mice on high fat diet. Cyrosections were performed Oil Red O staining. Positive staining areas are indicated by black arrows. (A) SR-BI$^{-/-}$ mice received high fat diet and saline injection; (B) SR-BI$^{-/-}$ mice received high fat diet and NAC injection. Scale bar: 400 μm.

Supplementary figure VI
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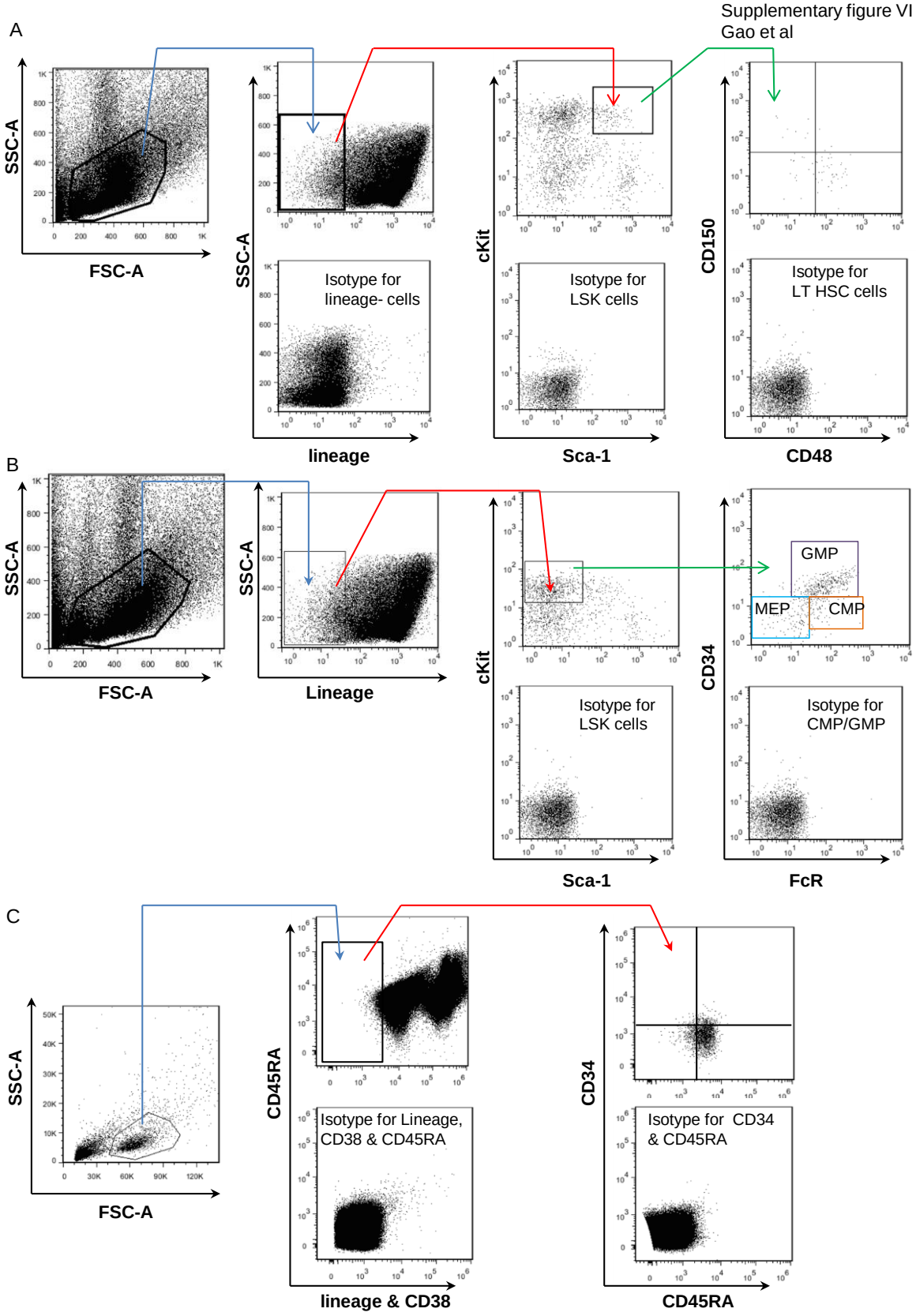

Supplementary figure VI. FACS analysis of murine and human HSPC. (A) Murine BMC were stained with Ab cocktail against lineage, cKit, Sca-1, CD150 and CD48. From FSC and SSC, living BMC are indicated in the box. Shown by the blue arrow, lineage- cells are obtained when gated on living BMC. Shown by the red arrow, $cKit^{+}$ $Sca\text{-}1^{+}$ cells are obtained when gated on $lineage^{-}$ cells, which are called LSK cells. When gated on LSK cells, $CD150^{+}$ $CD48^{-}$ LT HSC are identified and indicated by the green arrow. (B) Murine BMC were stained with Ab cocktail against lineage, cKit, Sca-1, CD34 and FcR. From FSC and SSC, living BMC are indicated in the box. Followed by the blue arrow, lineage- cells are identified in the box. Followed by the red arrow, $cKit^{+}$ $Sca\text{-}1^{-}$ progenitors (i.e. $lineage^{-}$ $cKit^{+}$ $Sca\text{-}1^{-}$ cells) are shown in the box. Followed by the green arrow, when gated on $lineage^{-}$ $cKit^{+}$ $Sca\text{-}1^{-}$ cells, $CD34^{+}$ FcR^{+} cells are granulocyte monocyte progenitors (GMP) and $CD34^{-}$ FcR^{-} cells are megakaryocyte-erythroid progenitors (MEP), whereas $CD34^{-}$ FcR^{+} cells are common myeloid progenitors (CMP). (C) Mononuclear cells in peripheral blood (PBMC) were isolated from human blood. PBMC were stained with Ab cocktail against lineage, CD38, CD45RA and CD34. From FSC and SSC, living PBMC are shown in the box. Indicated by the blue arrow, $lineage^{-}$ $CD38^{-}$ cells are identified and shown in the box. When gated on $lineage^{-}$ $CD38^{-}$ cells, $CD45RA^{-/low}$/$CD34^{+}$ cells are indicated by the red arrow.