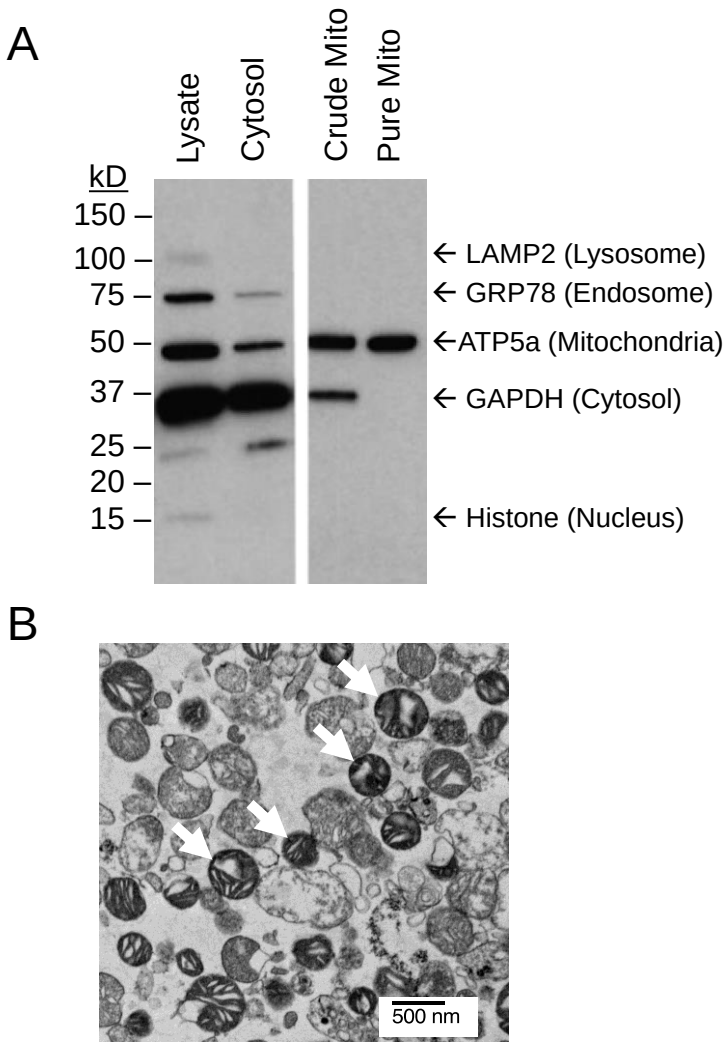

Figure S1. Verification of purified mitochondria. A) Western blot analysis of cell lysate, cytosol, crude mitochondria (Crude Mito) and affinity-purified mitochondria (Pure Mito) were analyzed by SDS-PAGE. Blots were simultaneously probed with a cocktail of rabbit monoclonal antibodies: anti-LAMP2 (lysosome marker), anti-GRP78 (endosome marker), anti-ATP5a (mitochondria marker), anti-GAPDH (cytosol marker), and anti-histone H3 (nuclear marker). B) Scanning electron microscopy analysis of purified mitochondria. White arrows point at examples of mitochondria.

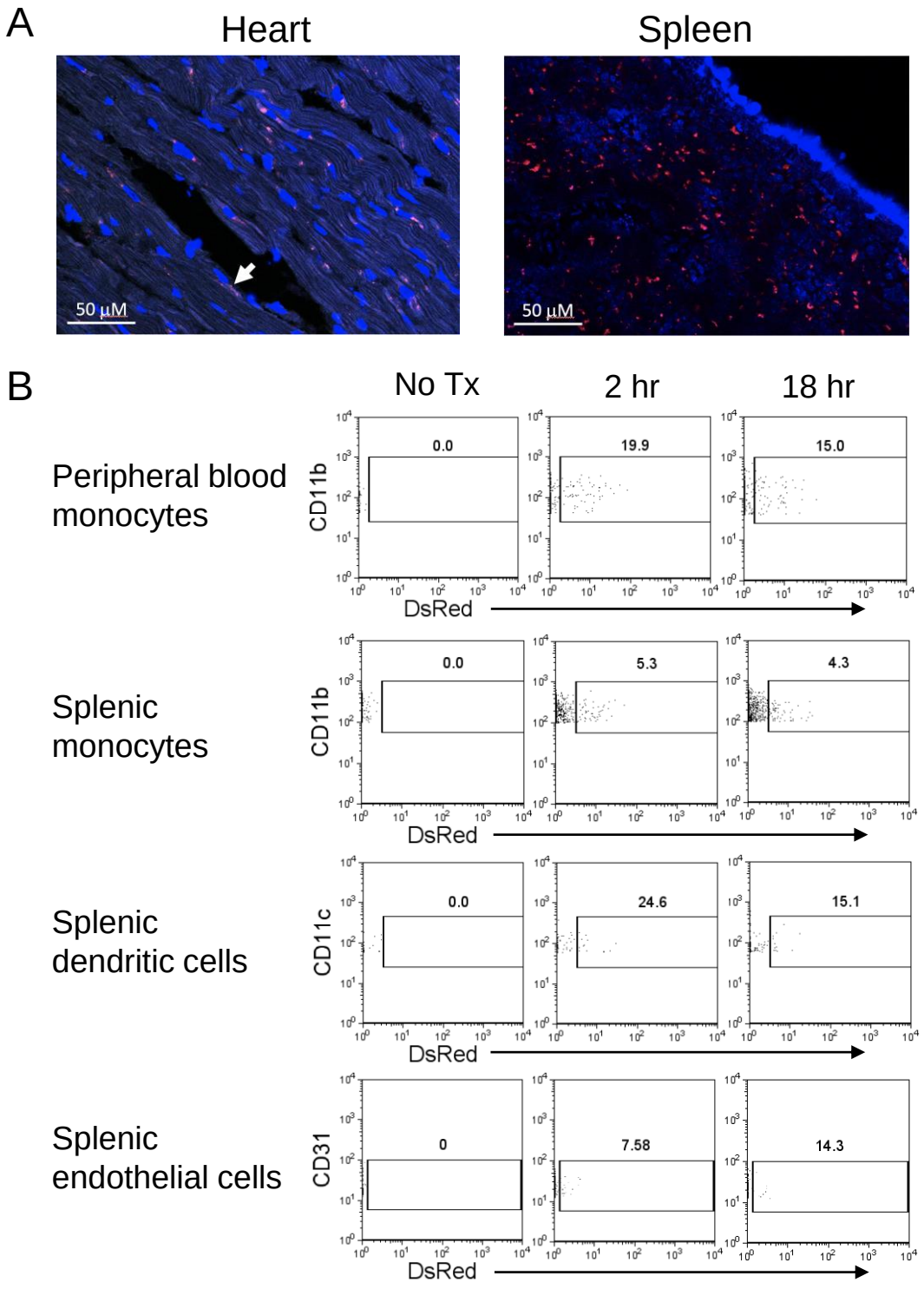

Figure S2. Localization of intravenously injected mitochondria. 300 mg of DsRed-labeled mitochondria were injected into healthy mice and the blood, spleen and heart were harvested at 2 hr or 18 hr. Frozen tissue sections (5 mM) were stained with DAPI nuclear stain and examined by confocal microscopy. A) Images of heart and spleen tissue. White arrow indicates a uptake of mitochondria by a potential endothelial cell. B) FACS analysis for DsRed uptake by peripheral blood monocytes ($CD11b^{+}$, $Ly6G^{neg}$), splenic monocytes ($CD11b^{+}$, $CD11c^{neg}$, $Ly6G^{neg}$), splenic dendritic cells ($CD11c^{+}$, $CD11b^{+}$, $Ly6G^{neg}$), and splenic endothelial cells ($CD31^{+}$, $CD45^{neg)}$.