

Fig. S1. Surface staining of human MSCs using mice sera. Naïve human UC-MSCs (left panel) and Ad-MSCs (right panel) were stained with secondary sera from mice injected with activated hUC-MSCs or hAd-MSCs, respectively. Additionally, each MSCs were stained with control serum. Stained cells were analyzed by flow cytometry. NC (negative control) means cells stained only with a secondary antibody. CTL: control serum, aUC-MSC and aAd-MSC: serum from mice injected activated with activated hUC-MSCs or hAd-MSCs, respectively. Numbers represent each mouse.



Fig. S2. Flow cytometric analysis of the splenocytes for the presence of $GL-7^+$ germinal center B cells. Splenocytes obtained from mice injected twice with naïve hAd-MSCs or hUC-MSCs were stained for B220 and GL-7 and subjected to the flow cytometric analysis. The frequency of the centroblasts marked as B220⁺ and GL-7⁺ was increased in those mice compared to the control. Representative FACS profiles for each group are presented. Data are depicted on the graph. *p<0.05 vs. the control.



Fig. S3. Flow cytometric analysis of the splenocytes for the presence of effector and/or memory CD4⁺ T cells. Splenocytes from mice injected twice with naïve hAd-MSCs or hUC-MSCs were stained for CD4, CD44, and CD62L. CD4⁺ T cells among splenocytes were gated, and the frequencies of effector cells (CD62L⁻ CD44⁺) and memory cells (CD62L⁺ CD44⁺) were evaluated. The frequency of both the effector and memory CD4⁺ T cells was increased in those mice compared to the control. Representative FACS profiles for each group are presented. Data are depicted on the graph. *p<0.05 vs. the control.



Fig. S4. Flow cytometric analysis of the splenocytes for the presence of effector and/or memory CD8⁺ T cells. Splenocytes from mice injected twice with naïve hAd-MSCs or hUC-MSCs were stained for CD8, CD44, and CD62L. CD8⁺ T cells among splenocytes were gated, and the frequencies of effector cells (CD62L⁻ CD44⁺) and memory cells (CD62L⁺ CD44⁺) were evaluated. The frequency of both the effector and memory CD8⁺ T cells was increased in those mice compared to the control. Representative FACS profiles for each group are presented. Data are depicted on the graph. *p<0.05 vs. the control.