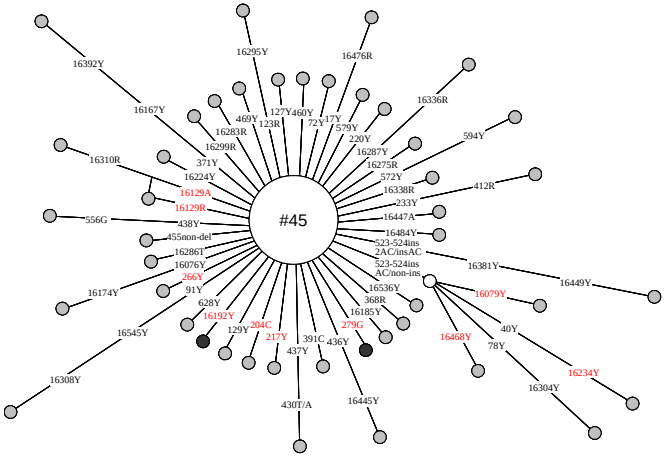
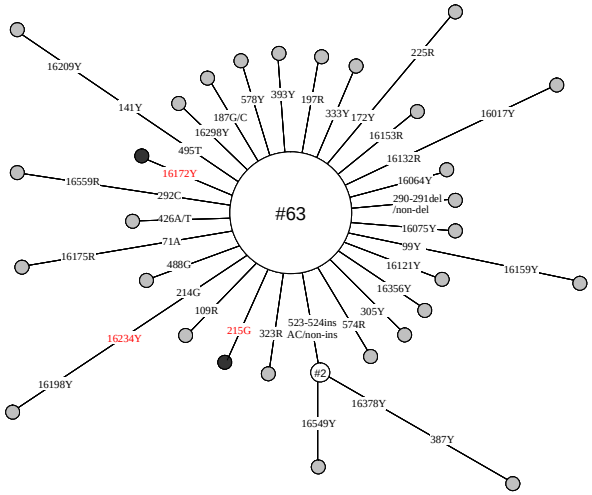
Supplementary Figures

There are three supplementary figures.

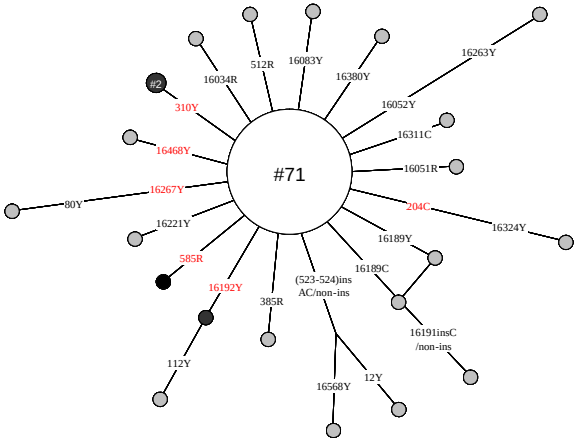
A-1



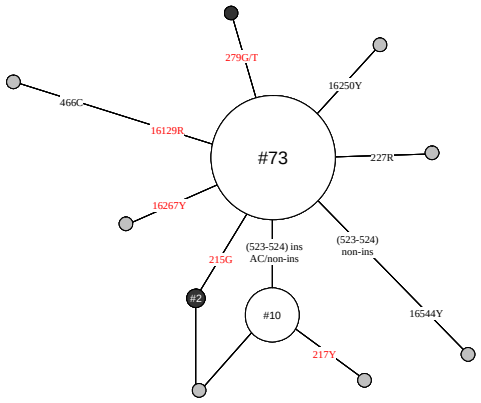
A-2



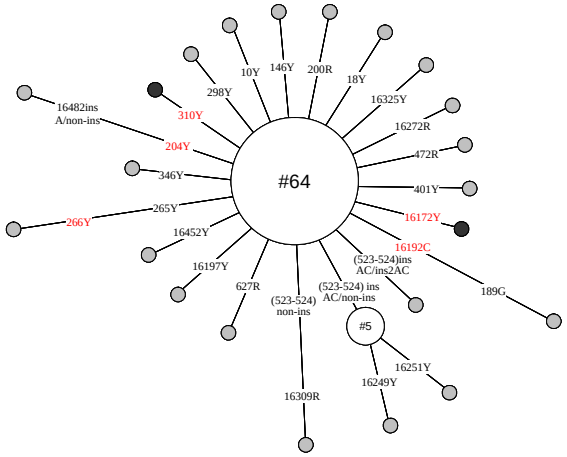
A-3



A-4



A-5



A-6

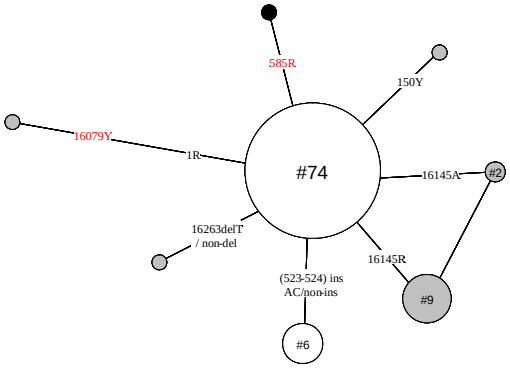


Figure S1 Network profile of mtDNA haplotypes ($CD34^+$ cell clones) observed in single $CD34^+$ cell populations from the six donors in family A. The networks were drawn according to the median-joining method. The length mutation of C-tract in region 303-309 in the mtDNA control region was not considered. The order of mutations on the branch is arbitrary. Each circle represents an mtDNA haplotype or a $CD34^+$ cell clone as recognized by mtDNA mutation(s) in a population of $CD34^+$ cells. The area of the circle is proportional to the frequency of the haplotype and is further specified by the number of cells sharing that haplotype. For instance, "#45" means this haplotype was found in 45 single cells in that sample. In each network, the haplotype in the center is the major type that has the consensus or aggregate sequence. mtDNA variants shared by cells from different donors are marked in red. These haplotypes / $CD34^+$ cell clones that were observed in different donors are marked by filled circles.

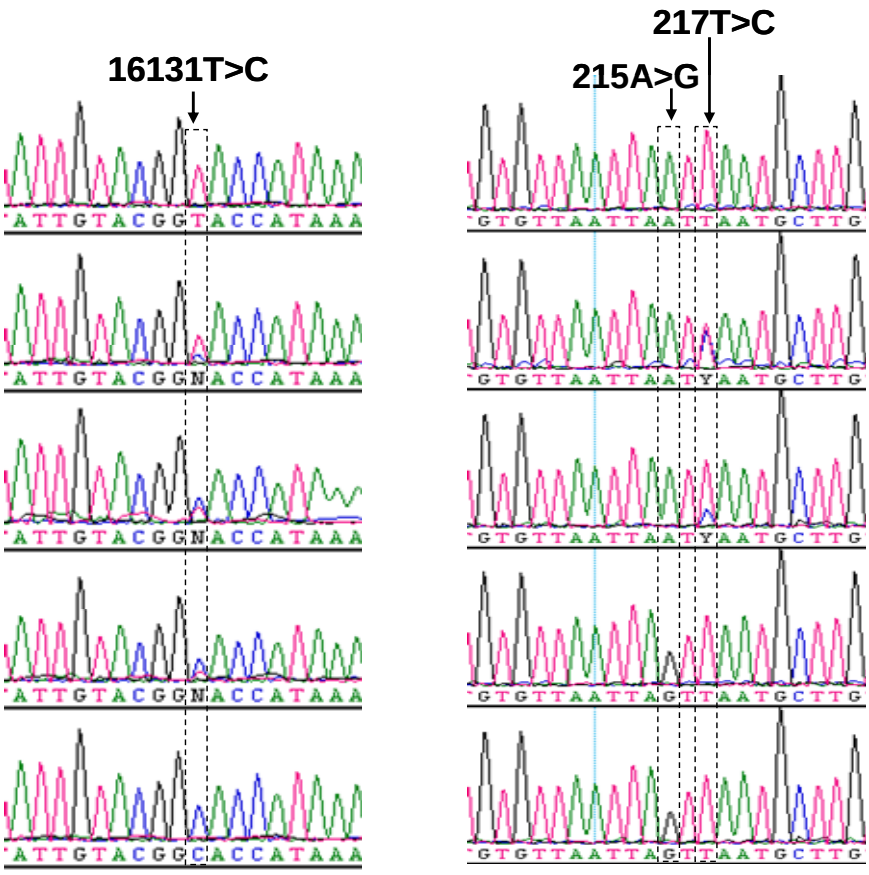


Figure S2 mtDNA mutations in single CD34^{+} cells from different healthy donors at positions 16131 (Family B) and 215 and 217 (Family A). Each sequencing electropherogram refers to one single cell.

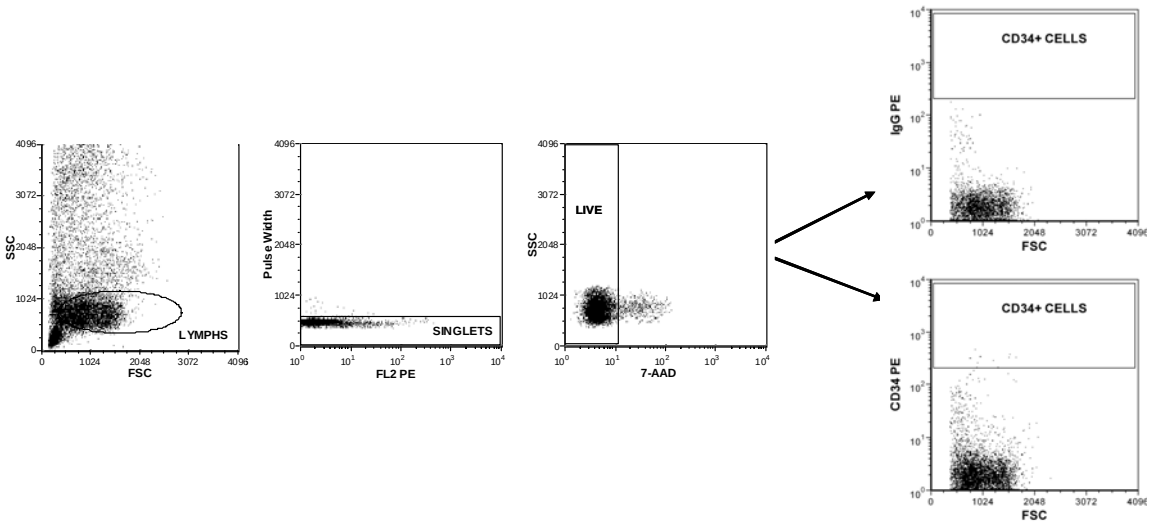


Figure S3 Representative staining and gating for single $CD34^+$ cell sorting. Mononuclear cells from whole blood were isolated by Ficoll density gradient centrifugation and were stained with anti-CD34 phycoerythrin (PE)-conjugated monoclonal antibody (BD Bioscience, San Jose, CA). Cell sorting was performed on the MoFlo Legacy high-performance cell sorter (Dako-Cytomation, Ft Collins, CO) and single cell deposition was accomplished using the CyClone Automated Cloner (Dako-Cytomation, Ft Collins, CO) in a 0.5 single drop mode.