LETTER TO THE EDITOR

The insertion/deletion polymorphism rs201494641 at *ITGA9* influences blood CD34^{+} cell levels by altering ZNF384 binding

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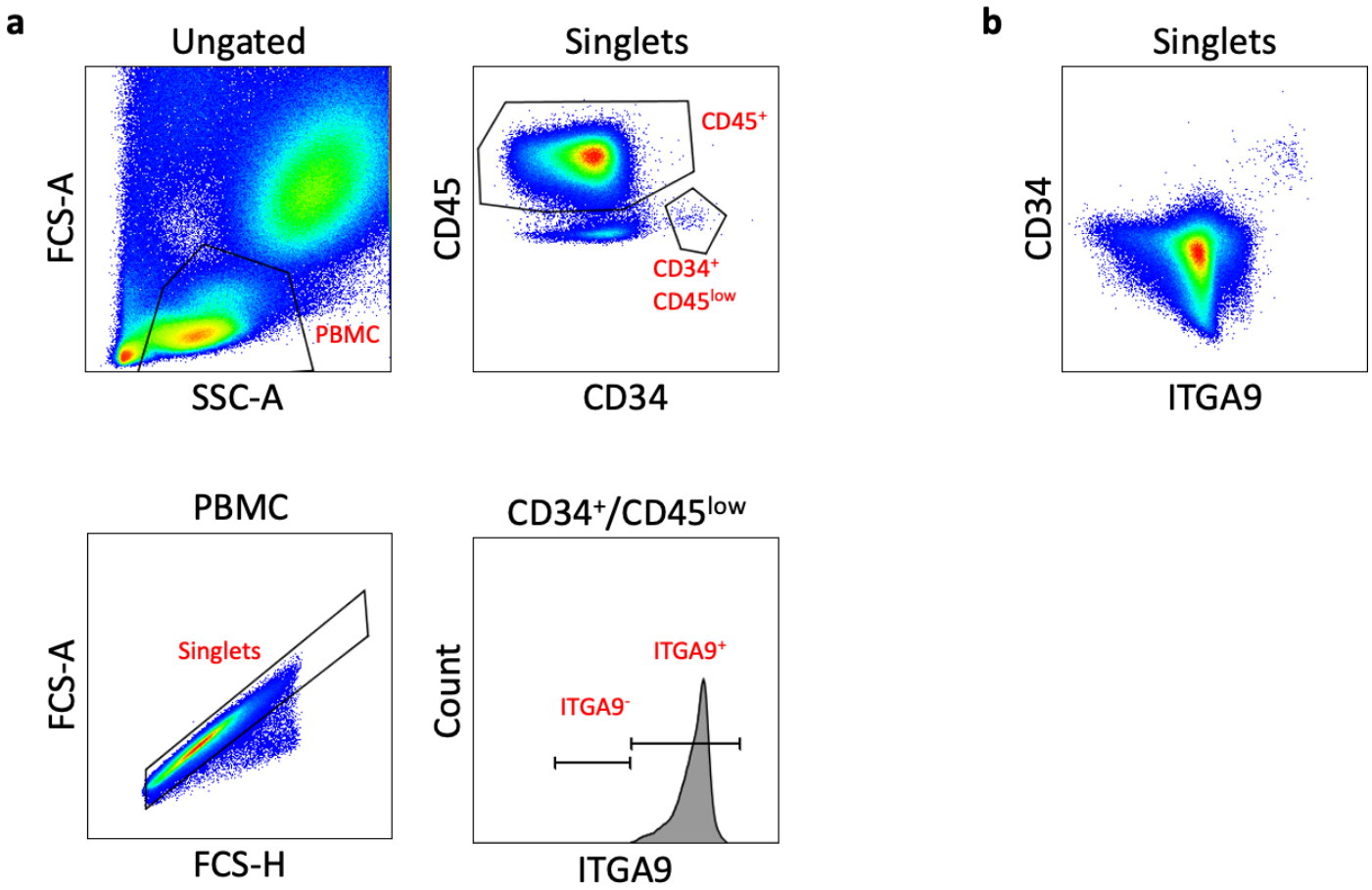
Supplementary Figure 1



(a) Gating procedure. **Top left:** peripheral blood mononuclear cells (PBMCs) were gated based on forward scatter area (FSC-A) and side scatter area (SSC-A) from 1 million cells. **Bottom left:** from PBMCs, singlets cells were gated based on forward scatter area (FSC-A) and forward scatter height (FSC-H). **Top right:** from singlets, $CD34^{+}45^{low}$ cells and $CD45^{+}$ cells were gated from the PBMCs cluster. **Bottom right:** $ITGA9^{+}$ cells were gated from the $CD34^{+}45^{low}$ cluster. **(b)** Co-expression of ITGA9 and CD34 in PBMCs (*i.e.*, cells that express ITGA9 also express CD34 and vice versa).

Supplementary Table 1

sgRNA and primer sequences used in CRISPR/Cas9 experiments.

sgRNA(s) (+ strand)		PAM		Strand		Primers for deletion confirmation	Deletion size (bp)
5'	3'	5'	3'	5'	3'	Forward/reverse	
sgRNA pair for deleting *ITGA9* whole region (chr3:37,477,598; "V1-V4")							
CACC**GATGAGAGAGTGAGAAGGGA**	CACC**GGTGTGAAAATGTTATTCTG**	AGG	AGG	-	-	CATGGACACTGTTGCACCTC	486
chr3:37,477,595-37,477,614	chr3:37,478,075-37,478,097					GACTCCCCTAAGAAGCTCCC	
sgRNA pair for deleting random control region							
CACCG**AAATTCCCGAAAAGCCTGGT**	CACCG**AAAGCACAGGCAGAAACTGT**	AGG	AGG	+	+	CCTGTTGCTGTGGCTACTGA	60
chr17:17,024,714-17,024,736	chr17:17024773-17024795					GCCAGGCTTGTTGGGAAGTA	

Supplementary Table 2

Reporter construct sequences used in luciferase experiments.

Variant	Sequence
rs73053290	ATAGGTACCTTCCCCAGAAACAAATGATACTGGATGTAAAGATAGCATCAGGATTAGAGGCAAGCCCCTTCC**[C/T]**TTCTCACTCTCTCATCCTGAGCTTCCTGTG TGCAGACGACATTTTAAGAAATGAGCGGGGAGGAGATCTATA
rs17227369	ATAGGTACCAAGAAATGAGCGGGGAGGGGAATCACTTCTTGAAATAACCACTGAACAAACTCTGTATAGGCA**[C/T]**TGACTGCTGCTCAGACTTTGGAGGACAAC TCAAAATGTTCAAGTCTAATGTCGCCCCTTTTCAAGATCTATA
rs201494641	ATAGGTACCTCTTTGTCATTTCCTTTCTAATTATCAGGGCTGTCCTTATCTGTTCAGTGCTTCCCATCTGTCCA**[TTTTTTTTTTT/TTTTTTTTT]**CAAAGCCACAGGG TACATTTTTGCATTTACTTCTGTTGCTCTGTTTCCTGATTTTTTTTAAAGTGAGATCTATA
rs17227404	ATAGGTACCACACACATGCAGAAAAAGGTATAAATCATCAATGTATACCTCAATAAATTTTCATTAGGTGAA**[C/T]**GTCCTCAGAATAACATTTTCACACCCCAGCA GCCCCTTCCCAATGCCCCTCCTGGCCACTTCCAGATCTATA

Major/minor allele in red within brackets