

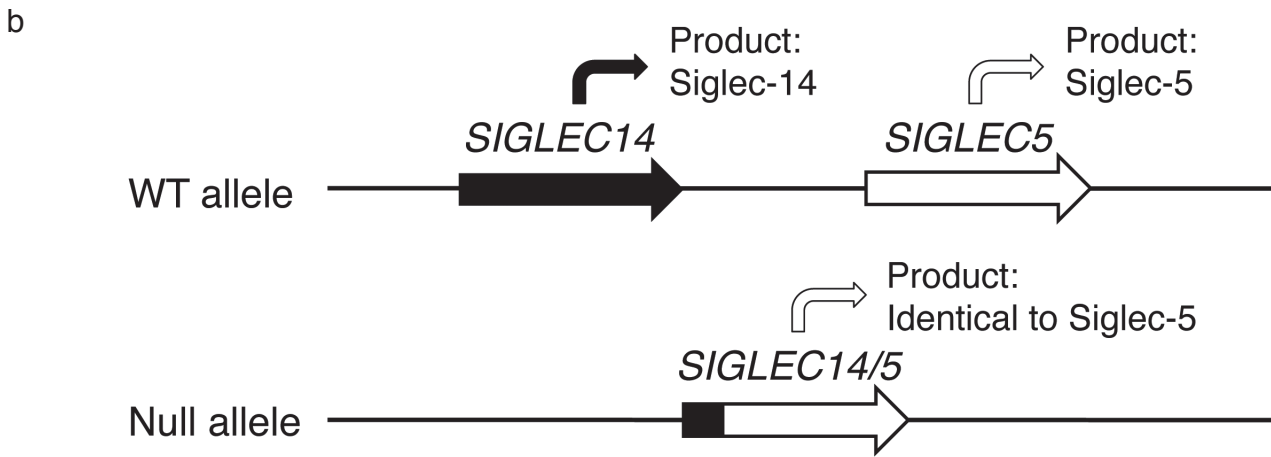
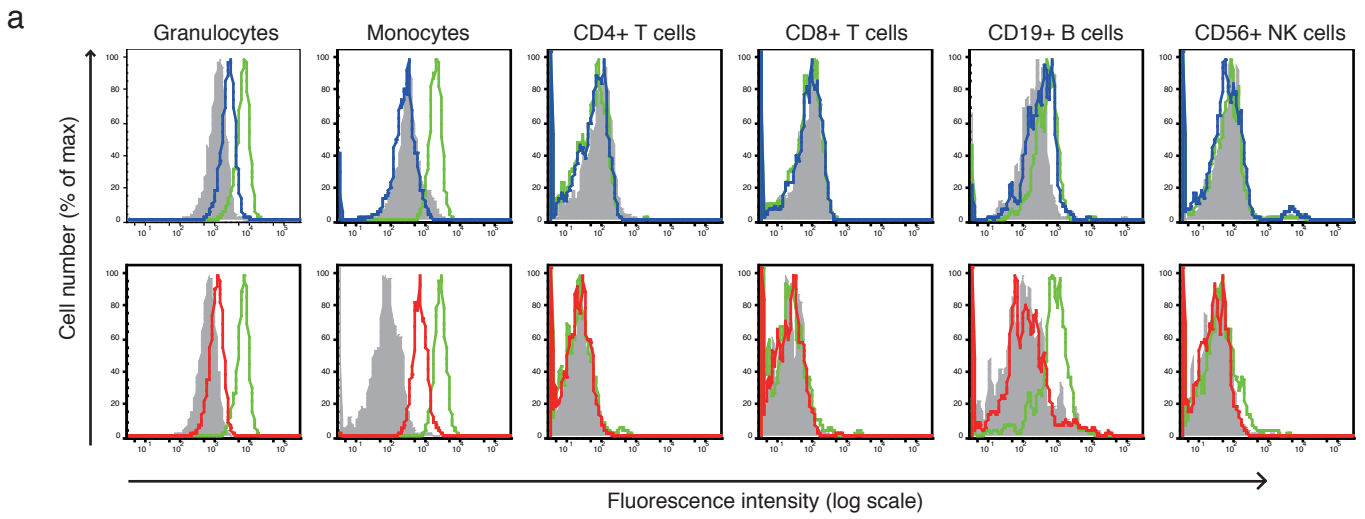
## Supplementary method

**Genotyping** (Reproduced from Yamanaka et al. 2009, *Glycobiology* **19**:841-846, with slight modifications.)

Primers used for specific amplification of *SIGLEC14*, *SIGLEC5*, and *SIGLEC14/5* fusion genes are as follows: 14F (AGGATTTATTCTCCCATCTCGCT), 14R (GATGCTGATGGCGAGGTTCTG), 5F (GTGGTTCTGACATCTCACCTCATC), and 5R (CCTGAAGATGGTGATGGTCTG). Primer pair 14F + 14R was used for the amplification of a segment of *SIGLEC14*; primer pair 5F + 5R for *SIGLEC5*; and primer pair 14F + 5R for *SIGLEC14/5*. Each reaction tube contained the following (in 20  $\mu$ l): genomic DNA, 100 ng; primers, 0.3  $\mu$ M each; dNTP, 0.2 mM each; Expand High Fidelity enzyme (Roche Diagnostics, Basel, Switzerland), 0.49 U; in 1  $\times$  PCR plus MgCl<sub>2</sub> buffer (Roche). Thermal cycling parameters were as follows: 94°C, 2 min; (94°C, 15 s; 56°C, 30 s; 72°C, 1.5 min)  $\times$  10 cycles; (94°C, 15 s; 56°C, 30 s; 72°C, 1.5 min + 5 s/cycle)  $\times$  20 cycles; 72°C, 7 min.

## Supplementary Figure Legend

**Supplementary Figure 1.** Correlation between *SIGLEC14* genotype and the expression patterns of Siglec-14 and Siglec-5. **(a)** Expression patterns of Siglec-5 and Siglec-14 in wild-type individual. Reproduced from Yamanaka *et al.* (2009), *Glycobiology* **19**, 841-846, with permission (Oxford University Press). Shown are staining of peripheral blood leukocytes (PBLs) with the specific anti-Siglec-5 and anti-Siglec-14 antibodies. Top panels: PBLs stained with a goat antibody recognizing only Siglec-5 (blue line), recognizing both Siglec-5 and -14 (green line), or with a negative control antibody (gray shaded area). Bottom panels: PBLs stained with a mouse monoclonal antibody recognizing only Siglec-14 (clone 40-1; red line) or both Siglec-5 and Siglec-14 (clone 194128, R&D Systems; green line), or with a negative control antibody (MOPC-21; gray shaded area). Results are displayed for each leukocyte population, which was defined by scatter profiles (granulocytes and monocytes) or positive staining with the respective lineage marker (lymphocyte subpopulations). **(b)** Schematic representation of *SIGLEC5*, *SIGLEC14*, and *SIGLEC14/5* fusion genes and their respective products. **(c)** Patterns of Siglec-5 and Siglec-14 expressions in wild-type, heterozygous, and null individuals. THP-1 sub-lines to mimic monocytes of each genotype are shown below.



**c**

		WT			Hetero			Null		
Cell type	Gr	Mono	B	Gr	Mono	B	Gr	Mono	B	
Siglec-5	+	-	+	+	+	+	+	+	+	
Siglec-14	+	+	-	+	+	-	-	-	-	
		Siglec-14 <sup>+</sup> 5 <sup>-</sup> /THP-1			Siglec-14 <sup>+</sup> 5 <sup>+</sup> /THP-1			Siglec-14 <sup>-</sup> 5 <sup>+</sup> /THP-1		