

SUPPLEMENTARY MATERIAL

Simultaneous measurement of blood pressure and RBC aggregation by monitoring on-off blood flows supplied from a disposable air-compressed pump

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S1. Quantification of pressure index at constant flow-rate of 2 mL/h controlled with syringe pump

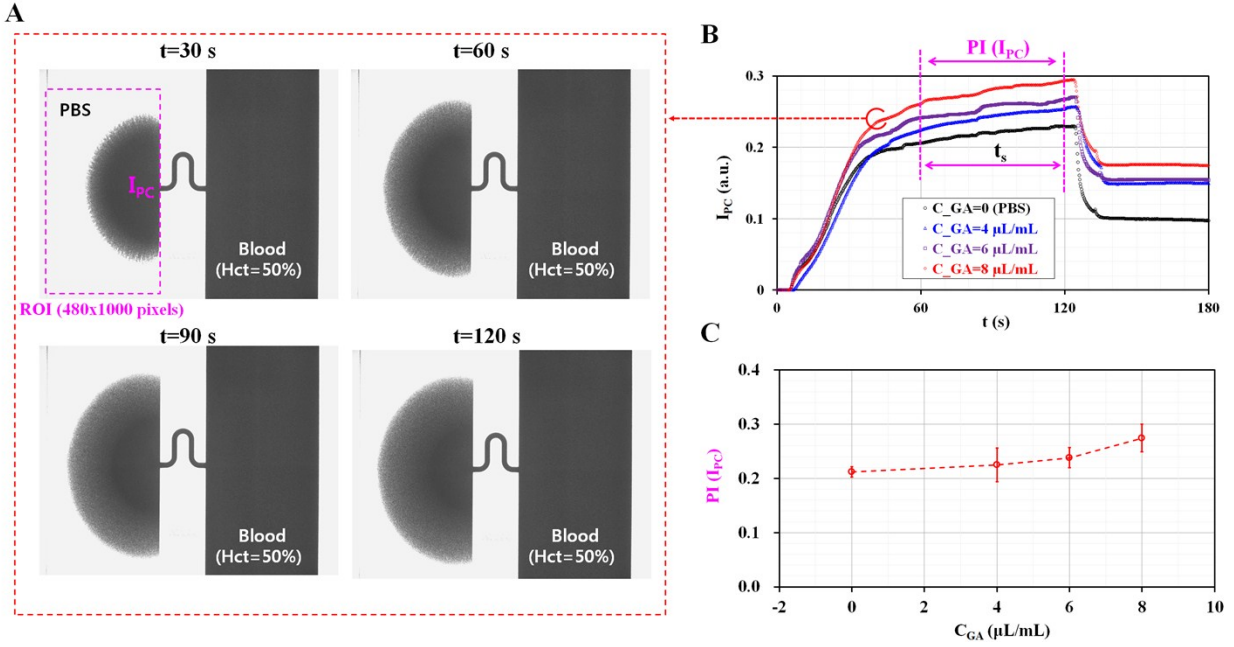


Fig. S1 Variations of pressure index (PI) for hardened blood composed of RBCs fixed with various concentrations of GA solution ($C_{GA}=0, 4, 6,$ and $8 \mu\text{L/mL}$) at a constant flow-rate of 2 mL/h with a syringe pump. The hardened blood ($\text{Hct}=50\%$) was prepared by adding hardened RBCs into PBS solution. **(A)** Microscopic images captured by high-speed camera with an elapse of time (t) ($t=30, 60, 90,$ and 120 s). Here, normal RBCs were fixed with $C_{GA}=8 \mu\text{L/mL}$. **(B)** Temporal variations of I_{PC} with respect to C_{GA} . $PI (I_{PC})$ was calculated by averaging temporal variations of I_{PC} from $t=60 \text{ s}$ to $t=120 \text{ s}$ (i.e., $t_s=60 \text{ s}$). **(C)** Variation of $PI (I_{PC})$ with respect to C_{GA} .