

Electronic Supplementary Information (ESI)

Finger-actuated microfluidic device for the blood cross-matching test

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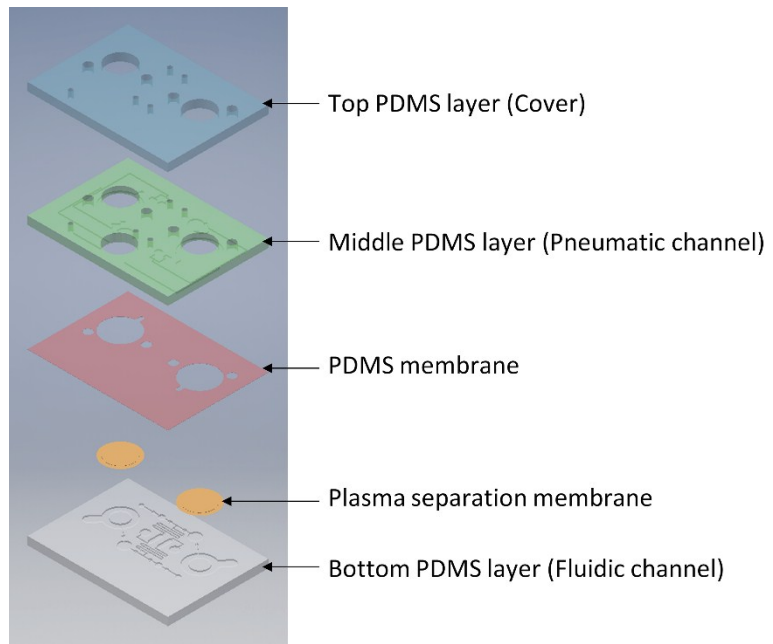


Fig. S1 A 3D schematic illustration of the finger-actuated microfluidic device for the blood cross-matching test.

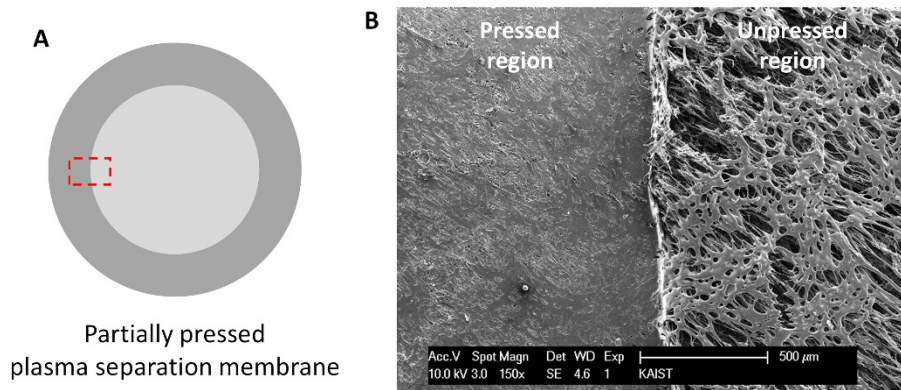


Fig. S2 (A) A schematic of partially pressed plasma separation membrane. (B) Scanning electron microscope (SEM) image of red dashed box in panel A.

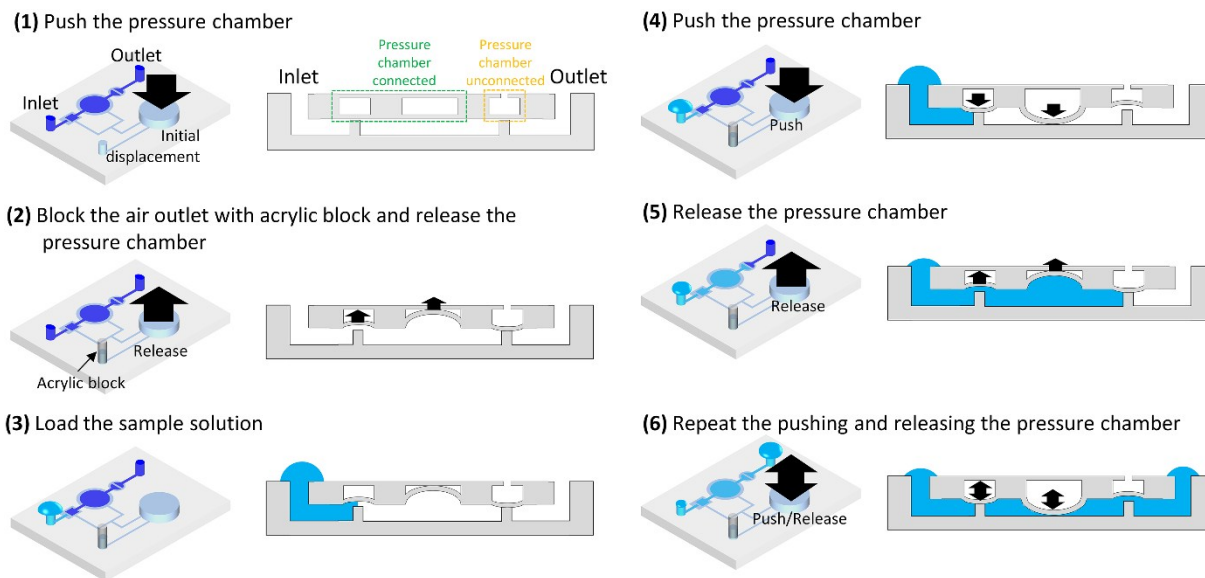


Fig. S3 A schematic illustration of procedures for preparing ready-to-use state of the finger-actuated microfluidic device.

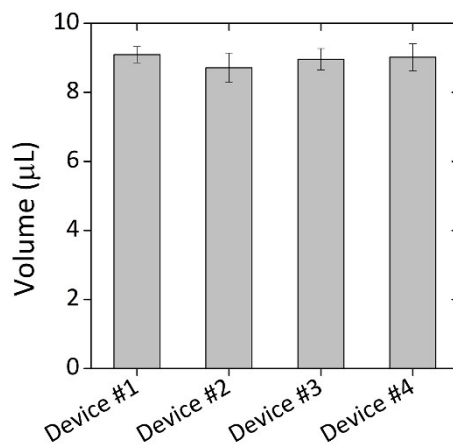


Fig. S4 The dispensed volume by pushing the pressure chamber four times according to the devices made at another time was plotted.

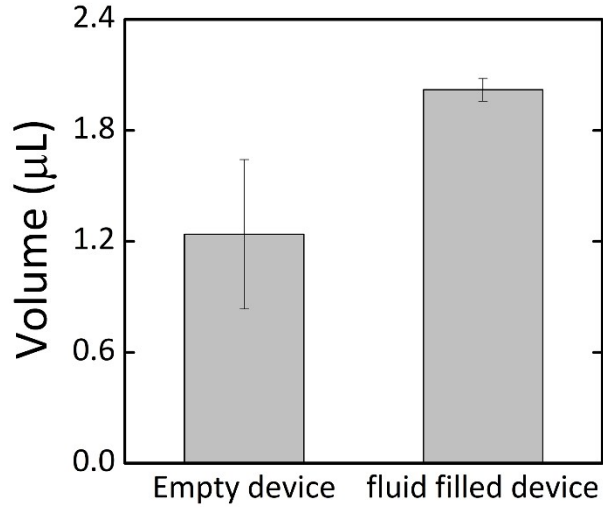


Fig. S5 The dispensed volume for actuating the empty device and for actuating the fluid filled device were compared. The diameter of an actuation chamber was 4000 µm.

Table. S1 The expected results of the blood cross-matching test according to the ABO blood types. The first symbol indicates the result of the major test, while the second symbol indicates the result of the minor test. The shaded boxes stand for the combination of blood types used in this study.

		Donor			
		A	B	O	AB
Recipient	A	--	++	-+	+-
	B	++	--	-+	+-
	O	+-	+-	--	+-
	AB	-+	-+	-+	--

+: agglutination, -: non-agglutination