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## **Supporting Information for**

Sensitive salivary SARS-CoV-2 antibody detection using S1-RBD proteinimmobilized 3D melt electrowritten poly(ε-caprolactone) scaffolds

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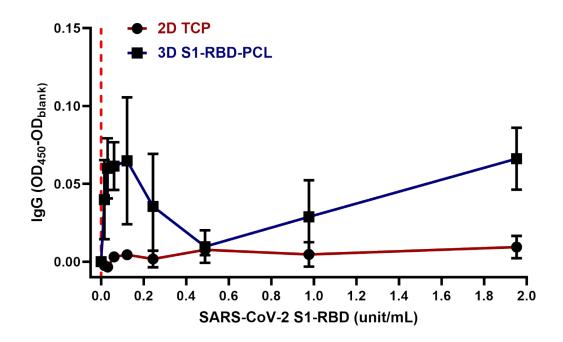
**Supplementary Table 1.** Relative elemental concentrations of the PCL scaffolds from XPS (atomic %; mean ± SD).

	C 1s	O 1s	N 1s
S1-RBD-PCL	79.7 ± 0.36	18.4 ± 0.19	1.83 ± 0.43
Blank PCL	82.6 ± 0.47	17.4 ± 0.47	

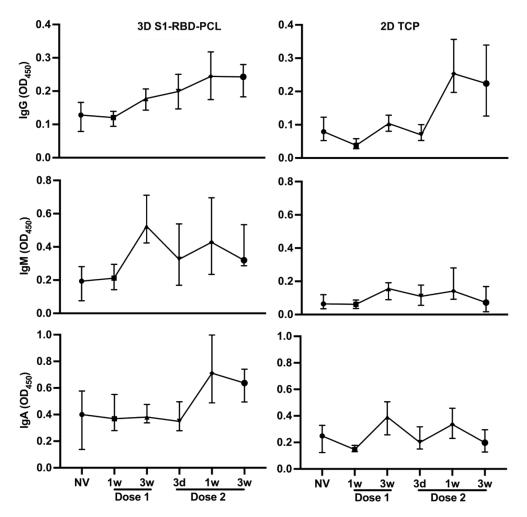
**Supplementary Table 2.** The percentage of positive immune responses over time.

	N V	Pos	st-va	ccine	dose	Post-vaccine dose 2					Tota I	
		1 week 3 weeks		3 c	days	1 week		3 weeks				
n	14	20		20			19	19		19		111
			% P	ositive	9	% Positive						
Anti-		3	2	3D	2D	3D	2D	3D	2D	3D	2D	
SARS		D	D									
-CoV-	IgG	15	5	55	25	60	10.5	89.	94.	84.	73.	
2 S1								5	7	2	7	
RBD	IgM	15	10	89.	66.	50	47.3	68.	63.	44.	38.	
				5	7		7	4	2	4	9	
	ΙgΑ	25	5	15	55	15.	15.8	63.	42.	61.	16.	
						8		2	1	1	7	

**Supplementary Figure 1.** Carbodiimide crosslinker chemistry is used to immobilise S1-RBD on PCL scaffolds.



**Supplementary Figure 2.** The detection limits assay using 8 additional concentrations of positive controls that provided by the kit for 3D and 2D assays.



**Supplementary Figure 3.** The kinetics trend of salivary antibody against SARS-CoV-2 S1-RBD with time for 3D and 2D assays. Data are displayed as median  $\pm$  95 % confidence interval.