

SUPPORTING INFORMATION

Design of Dissolvable Microneedles for Delivery of a Pfs47-based Malaria Transmission-blocking Vaccine

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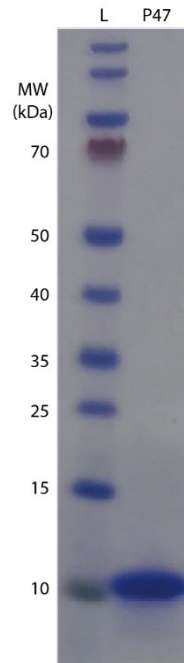


Figure S1. Coomassie blue stained SDS Page of purified soluble P47 antigen expressed in *E. coli*.

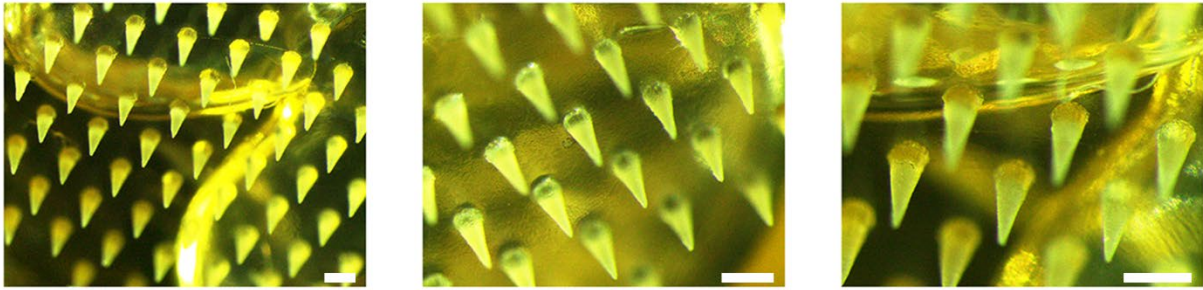


Figure S2. Image of gelatin DMN patch containing P47 vaccine using a stereomicroscope. Scale bars 500 μm . The yellow appearance of the microneedle is due to the gelatin.

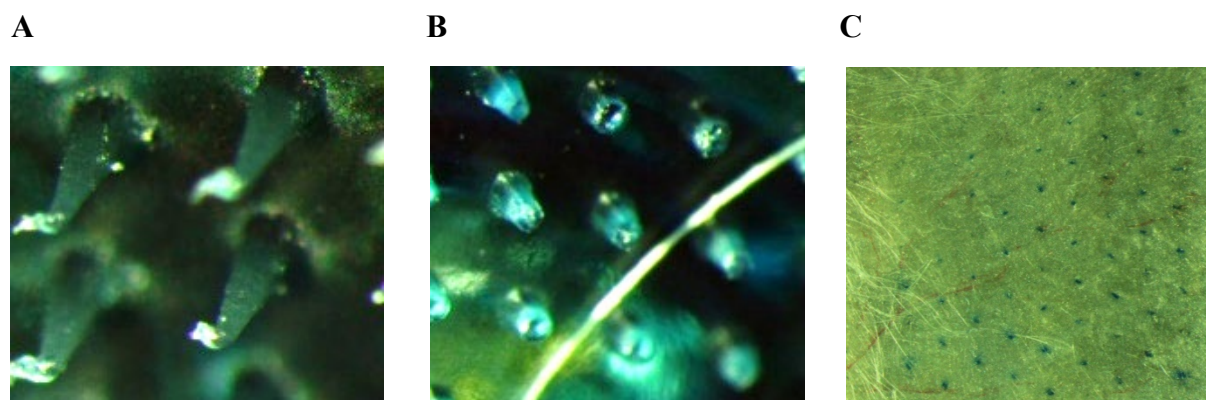


Figure S3. Dissolution of microneedles after insertion into mouse ear skin. A microneedle patch loaded with Trypan blue, to facilitate imaging, was inserted into mouse ear and imaged by bright-field microscopy. A close-up of the microneedle patch is shown (A) 1 min and (B) 30 min after insertion. (C) The penetration pattern in the skin demonstrating the characteristic array pattern following removal of the microneedle array.

	<i>CpG concentration (ng/μL)</i>					
	5 min		15 min		30 min	
DMN-CpG	72	76	139	155	216	208
DMN-CpG/P47	30	34	93	97	187	185

Figure S4. Quantification of CpG concentration in dissolved microneedles by Nanodrop A260 nm absorbance. The arrays were dissolved for 5, 15, 30 min and were quantified in duplicate.