

Supplementary Materials: Applying Microfluidics for the Production of the Cationic Liposome-Based Vaccine Adjuvant CAF09b

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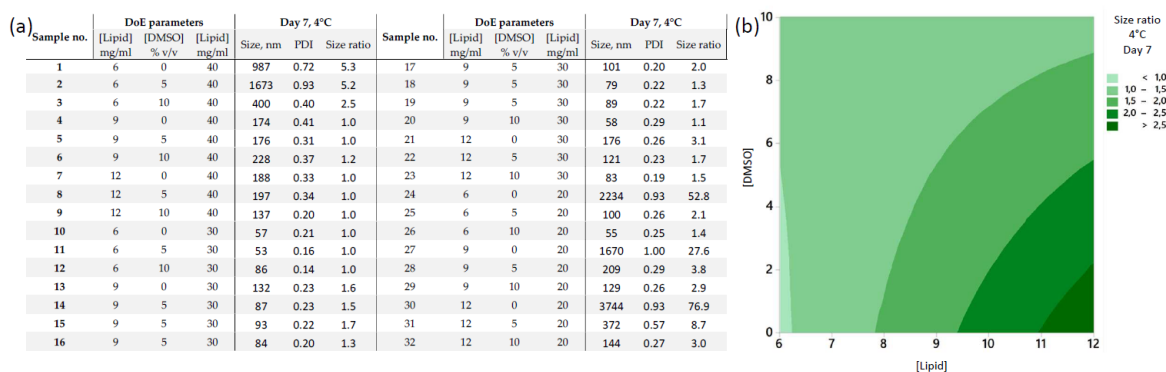


Figure S1. (a) Size, PDI and size ratio for all samples on day 7 at 4°C storage. (b) RSM model of the size ratio of samples on day 7, manufactured at 30% EtOH and stored at 4°C.

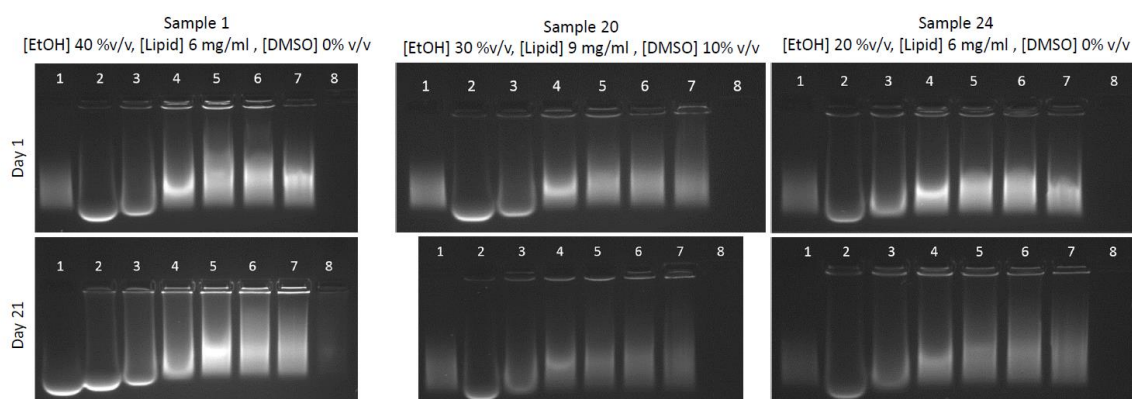


Figure S2. Release of poly(I:C) from CAF09b after SDS treatment. The samples were treated with 0, 0.1, 0.25, 0.5, 1, 2, and 3% SDS, and analyzed with agarose (1%) gel electrophoresis the day after preparation and 21 days after preparation, storage at 4°C. Lane 1: Poly(I:C) control, lane 2–8: CAF09b treated with 3, 2, 1, 0.5, 0.25, 0.1 and 0% SDS, respectively.

Table S1. Statistical significance of parameters in the RSM models.

Figure 1a	
Source	p-value
Model	0.000
Linear	0.000
[EtOH]	0.000
[DMSO]	0.001
Square	0.000
[EtOH]*[EtOH]	0.000
2-way interaction	0.007
[EtOH]*[DMSO]	0.007
Error	
Lack-of-fit	0.177
Figure 1b	
Source	p-value
Model	0.001
Linear	0.074
[EtOH]	0.123
[Lipid]	0.353
[DMSO]	0.041
Square	0.001
[EtOH]*[EtOH]	0.001
2-way interaction	0.004
[EtOH]*[DMSO]	0.003
[Lipid]*[DMSO]	0.084
Error	
Lack-of-fit	0.044
Figure 1c	
Source	p-value
Model	0.004
Linear	0.004
[EtOH]	0.004
[DMSO]	0.046
Square	0.082
[EtOH]*[EtOH]	0.082
Error	
Lack-of-fit	0.962
Figure 2a	
Source	p-value
Model	0.017
Linear	0.007
[Lipid]	0.006
[DMSO]	0.041
Square	0.729
[Lipid]*[Lipid]	0.574
[DMSO]*[DMSO]	0.797
2-way interaction	0.024
[Lipid]*[DMSO]	0.024
Error	
Lack-of-fit	0.320

Figure 2b	
Source	p-value
Model	0.006
Linear	0.002
[Lipid]	0.002
[DMSO]	0.018
Square	0.925
[Lipid]*[Lipid]	0.760
[DMSO]*[DMSO]	0.934
2-way interaction	0.019
[Lipid]*[DMSO]	0.019
Error	
Lack-of-fit	0.145
Figure 2c	
Source	p-value
Model	0.243
Linear	0.200
[Lipid]	0.867
[DMSO]	0.083
Square	0.179
[Lipid]*[Lipid]	0.373
[DMSO]*[DMSO]	0.072
2-way interaction	0.690
[Lipid]*[DMSO]	0.690
Error	
Lack-of-fit	0.179
Figure 2d	
Source	p-value
Model	0.262
Linear	0.269
[Lipid]	0.244
[DMSO]	0.251
Square	0.159
[Lipid]*[Lipid]	0.253
[DMSO]*[DMSO]	0.066
2-way interaction	0.622
[Lipid]*[DMSO]	0.622
Error	
Lack-of-fit	0.081
Figure 3a	
Source	p-value
Model	0.003
Linear	0.003
[EtOH]	0.013
[Lipid]	0.007
Error	
Lack-of-fit	0.082
Supplementary figure 1b	
Source	p-value
Model	0.010

Linear	0.003
[Lipid]	0.003
[DMSO]	0.027
Square	0.989
[Lipid]*[Lipid]	0.946
[DMSO]*[DMSO]	0.929
2-way interaction	0.025
[Lipid]*[DMSO]	0.025
Error	
Lack-of-fit	0.376