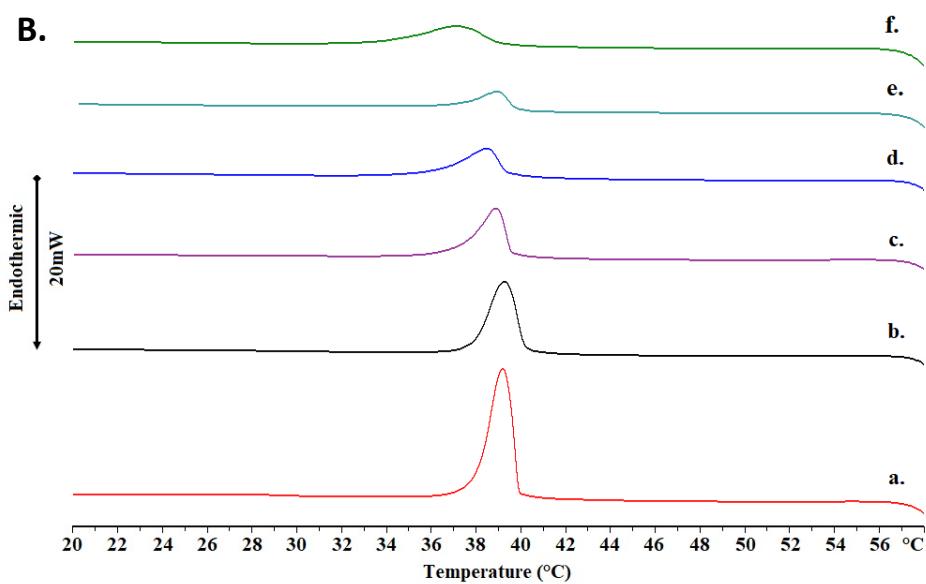
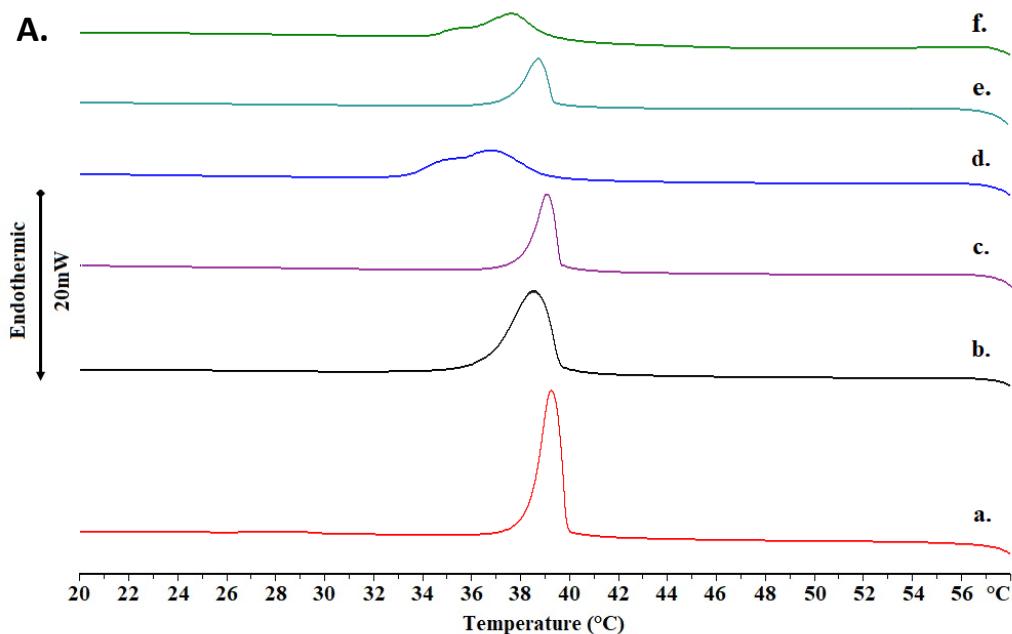
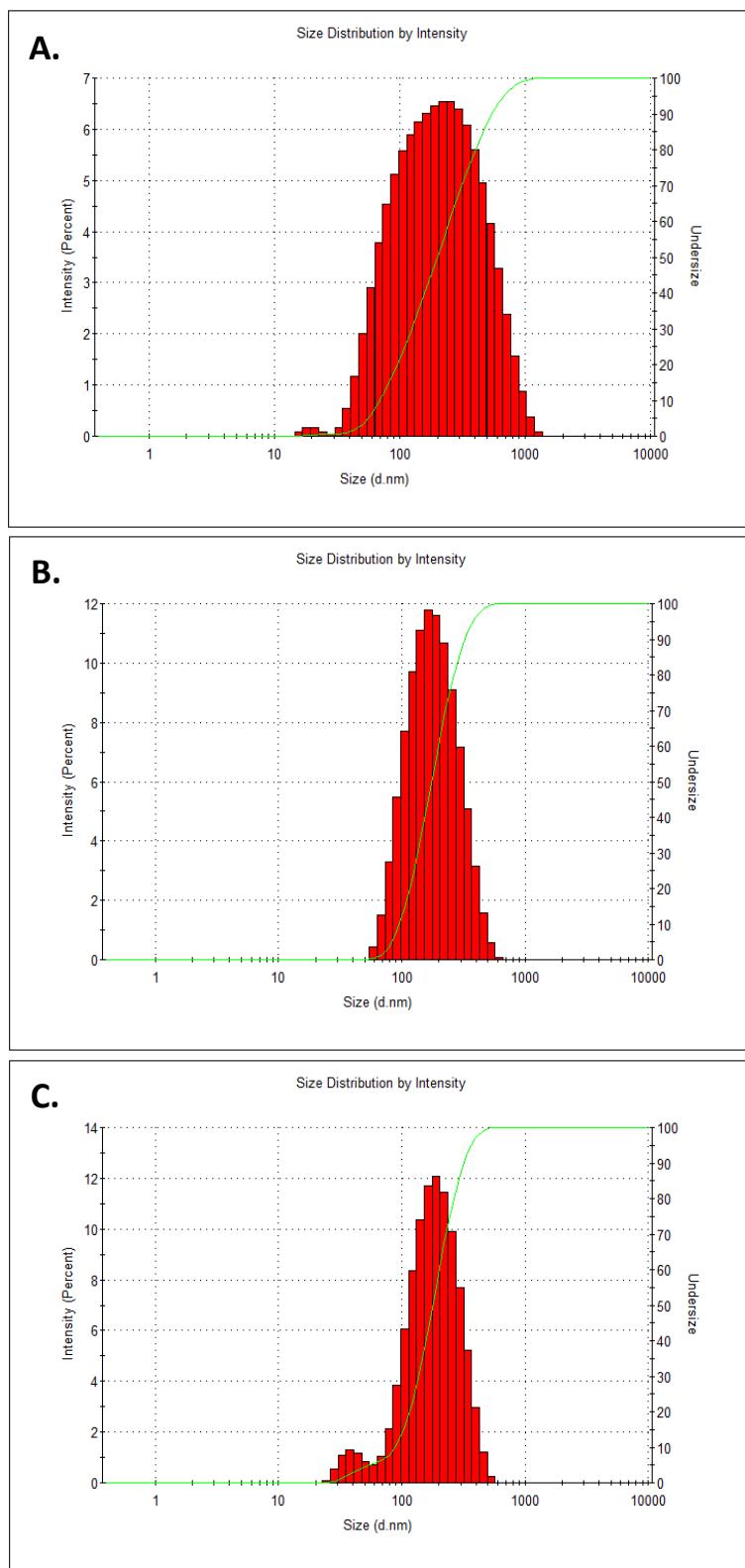


## Supporting Information

# Chimeric Stimuli-Responsive Liposomes as Nanocarriers for the Delivery of the Anti-Glioma Agent TRAM-34



**Figure 1.** DSC cooling curves in A. PBS (pH = 7.4) and B. citrate buffer (pH = 4.5) of a. DPPC, b. DPPC:Tram-34, c. DPPC:PDMAEMA-b-PLMA 1, d. DPPC:PDMAEMA-b-PLMA 1:Tram-34, e. DPPC:PDMAEMA-b-PLMA 2 and f. DPPC:PDMAEMA-b-PLMA 2:Tram-34.



**Figure S2.** Size distributions from DLS, based on the scattered intensity of nanoparticles of A. EPC, B. EPC:PDMAEMA-b-PLMA 1 and C. EPC:PDMAEMA-b-PLMA 2.

**Table S1.** Calorimetric heating and cooling profiles of chimeric bilayers in PBS (pH = 7.4) and acidic environment (pH = 4.5).

| Sample                      | Process | Dispersion Medium | T <sub>onset,m</sub> (°C) | T <sub>m</sub> (°C) | ΔT <sub>1/2,m</sub> (°C) | ΔH <sub>m</sub> (J g <sup>-1</sup> ) | T <sub>onset,s</sub> (°C) | T <sub>s</sub> (°C) | ΔT <sub>1/2,s</sub> (°C) | ΔH <sub>s</sub> (J g <sup>-1</sup> ) |
|-----------------------------|---------|-------------------|---------------------------|---------------------|--------------------------|--------------------------------------|---------------------------|---------------------|--------------------------|--------------------------------------|
| DPPC                        | Heating | PBS (pH=7.4)      | 40.78                     | 41.33               | 0.90                     | -53.11                               | 34.49                     | 36.44               | 1.88                     | 7.18                                 |
| DPPC:Tram-34                | Heating | PBS (pH=7.4)      | 39.27                     | 40.89               | 1.47                     | -56.96                               | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA3         | Heating | PBS (pH=7.4)      | 40.48                     | 41.05               | 0.90                     | -28.42                               | 32.97                     | 35.42               | 2.55                     | 1.73                                 |
| DPPC:PDMAEMA-b-PLA3:Tram-34 | Heating | PBS (pH=7.4)      | 37.32                     | 39.68               | 2.76                     | -34.17                               | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA4         | Heating | PBS (pH=7.4)      | 40.44                     | 41.11               | 0.99                     | -19.87                               | 33.98                     | 35.94               | 2.42                     | 0.96                                 |
| DPPC:PDMAEMA-b-PLA4:Tram-34 | Heating | PBS (pH=7.4)      | 38.38                     | 40.14               | 1.66                     | -24.94                               | -                         | -                   | -                        | -                                    |
| DPPC                        | Heating | pH=4.5            | 40.95                     | 41.53               | 1.07                     | -60.34                               | 33.79                     | 35.58               | 2.27                     | 5.69                                 |
| DPPC:Tram-34                | Heating | pH=4.5            | 40.56                     | 41.50               | 1.03                     | -39.57                               | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA3         | Heating | pH=4.5            | 39.96                     | 40.98               | 1.12                     | -37.96                               | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA3:Tram-34 | Heating | pH=4.5            | 38.88                     | 40.47               | 1.55                     | -22.71                               | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA4         | Heating | pH=4.5            | 40.07                     | 41.11               | 1.18                     | -13.14                               | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA4:Tram-34 | Heating | pH=4.5            | 37.81                     | 40.08               | 2.35                     | -21.25                               | -                         | -                   | -                        | -                                    |
| DPPC                        | Cooling | PBS (pH=7.4)      | 40.11                     | 39.57               | 0.97                     | 56.81                                | -                         | -                   | -                        | -                                    |
| DPPC:Tram-34                | Cooling | PBS (pH=7.4)      | 39.84                     | 38.75               | 1.83                     | 58.69                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA3         | Cooling | PBS (pH=7.4)      | 39.90                     | 39.36               | 0.92                     | 28.30                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA3:Tram-34 | Cooling | PBS (pH=7.4)      | 39.29                     | 36.97               | 3.65                     | 32.83                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA4         | Cooling | PBS (pH=7.4)      | 39.71                     | 39.05               | 1.06                     | 20.77                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA4:Tram-34 | Cooling | PBS (pH=7.4)      | 39.36                     | 37.76               | 2.27                     | 25.66                                | -                         | -                   | -                        | -                                    |
| DPPC                        | Cooling | pH=4.5            | 40.27                     | 39.70               | 1.16                     | 62.18                                | -                         | -                   | -                        | -                                    |
| DPPC:Tram-34                | Cooling | pH=4.5            | 40.48                     | 39.64               | 1.38                     | 40.65                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA3         | Cooling | pH=4.5            | 39.86                     | 39.18               | 1.34                     | 40.09                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA3:Tram-34 | Cooling | pH=4.5            | 39.73                     | 38.77               | 1.79                     | 22.79                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA4         | Cooling | pH=4.5            | 39.90                     | 38.96               | 1.54                     | 17.55                                | -                         | -                   | -                        | -                                    |
| DPPC:PDMAEMA-b-PLA4:Tram-34 | Cooling | pH=4.5            | 39.48                     | 37.49               | 3.00                     | 22.56                                | -                         | -                   | -                        | -                                    |