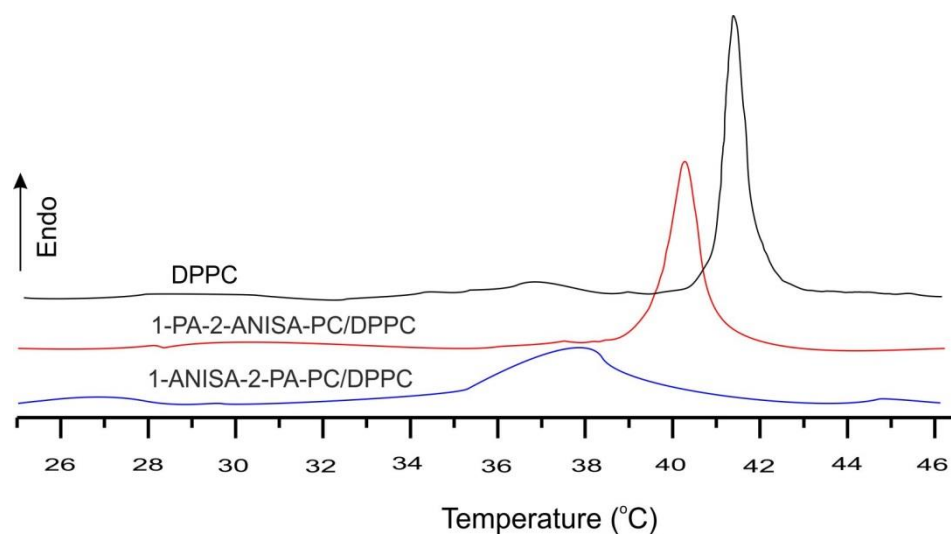


**Table S1.** Assigned bands of ATR -FTIR spectra of DPPC film and for 1-ANISA-2-PA-PC/DPPC (1:5) and 1-PA-2-ANISA-PC/DPPC (1:5) systems at different temperatures.

| ATR spectra, wavenumbers (cm <sup>-1</sup> )    |         |                      |                      |
|---|---------|----------------------|----------------------|
| Assignet*                                       | DPPC    | 1-ANISA-2-PA-PC/DPPC | 1-PA-2-ANISA-PC/DPPC |
| 25°C  |         |                      |                      |
| δ(CH <sub>2</sub> )                             | 1467.44 | 1467.35              | 1467.37              |
| γ <sub>r</sub> (CH <sub>2</sub> )               | 720.98  | 721.07               | 721.06               |
| ν <sub>s</sub> (N-C)                            | 925.80  | 926.07               | 925.85               |
| ν <sub>as</sub> (N-C) <sub>ip</sub>             | 969.24  | 969.37               | 969.36               |
| ν <sub>s</sub> (COP)                            | 1060.96 | 1062.57              | 1090.15              |
| ν <sub>s</sub> (PO <sub>2</sub> <sup>-</sup> )  | 1089.44 | 1090.21              | 1062.31              |
| ν <sub>as</sub> (PO <sub>2</sub> <sup>-</sup> ) | 1244.92 | 1244.10              | 1244.42              |
| ν(C=O)  | 1732.40 | 1731.22              | 1734.50              |
|   | 1736.72 | 1735.35              | -                    |
| ν <sub>s</sub> (CH <sub>2</sub> )               | 2849.36 | 2849.69              | 2849.44              |
| ν <sub>s</sub> (CH <sub>3</sub> )               | 2873.17 | 2872.75              | 2873.11              |
| ν <sub>as</sub> (CH <sub>2</sub> )              | 2916.46 | 2917.13              | 2916.56              |
| ν <sub>as</sub> (CH <sub>3</sub> )              | 2955.72 | 2955.53              | 2955.71              |
| 38°C  |         |                      |                      |
| δ(CH <sub>2</sub> )                             | 1467.50 | 1467.46              | 1467.69              |
| γ <sub>r</sub> (CH <sub>2</sub> )               | 720.95  | 721.12               | 720.97               |
| ν <sub>s</sub> (N-C)                            | 924.70  | 925.35               | 925.31               |
| ν <sub>as</sub> (N-C) <sub>ip</sub>             | 968.80  | 968.91               | 969.02               |
| ν <sub>s</sub> (COP)                            | 1062.34 | 1062.98              | 1062.74              |
| ν <sub>s</sub> (PO <sub>2</sub> <sup>-</sup> )  | 1089.29 | 1090.00              | 1089.88              |
| ν <sub>as</sub> (PO <sub>2</sub> <sup>-</sup> ) | 1245.23 | 1244.71              | 1245.51              |
| ν(C=O)  | 1732.59 | 1731.15              | -                    |
|   | 1736.69 | 1735.46              | 1734.61              |
| ν <sub>s</sub> (CH <sub>2</sub> )               | 2849.51 | 2849.54              | 2849.53              |
| ν <sub>s</sub> (CH <sub>3</sub> )               | 2873.34 | 2873.24              | 2873.30              |
| ν <sub>as</sub> (CH <sub>2</sub> )              | 2916.95 | 2916.95              | 2916.97              |
| ν <sub>as</sub> (CH <sub>3</sub> )              | 2956.12 | 2956.42              | 2956.10              |
| 50°C  |         |                      |                      |
| δ(CH <sub>2</sub> )                             | 1467.39 | 1467.45              | 1464.88              |
| γ <sub>r</sub> (CH <sub>2</sub> )               | 720.02  | 720.71               | 720.68               |
| ν <sub>s</sub> (N-C)                            | 925.95  | 924.28               | 924.32               |
| ν <sub>as</sub> (N-C) <sub>ip</sub>             | 967.77  | 968.38               | 968.41               |
| ν <sub>s</sub> (COP)                            | 1058.40 | 1064.62              | 1064.25              |
| ν <sub>s</sub> (PO <sub>2</sub> <sup>-</sup> )  | 1087.28 | 1089.88              | 1089.94              |
| ν <sub>as</sub> (PO <sub>2</sub> <sup>-</sup> ) | 1244.96 | 1244.39              | 1245.41              |
| ν(C=O)  | 1722.82 | -                    | -                    |
|   | 1736.48 | 1734.73              | 1734.61              |
| ν <sub>s</sub> (CH <sub>2</sub> )               | 2849.34 | 2849.85              | 2849.71              |
| ν <sub>s</sub> (CH <sub>3</sub> )               | 2872.84 | 2873.20              | 2873.38              |
| ν <sub>as</sub> (CH <sub>2</sub> )              | 2916.43 | 2917.73              | 2917.47              |
| ν <sub>as</sub> (CH <sub>3</sub> )              | 2955.32 | 2956.42              | 2956.41              |

\* vibrations: δ – bending, γ - deformation; ν - stretching; r - rocking; s - symmetric; as – antisymmetric;



**Figure S1.** DSC thermogram of DPPC liposomes and new form of liposomes composed of DPPC and conjugates of anisic acid with phosphatidylcholine at molar ratio conjugates/DPPC 1:1