



**Fig. S7** The relative content of sphingomyelin (Sph) molecular species in the liver lipids of mice taking various nanoliposomal complexes. Along the abscissa axis: 1-st group – 2-month-old control mice maintained on a normal diet; 2-d group was fed PC; 3-d group was fed (PC+CEO); 4-th group was fed (PC+SC); 5-th group was fed (PC+CEO+SC); 6-th group was fed (PC+FO+SC); 7-th group was fed (PC+FO+CEO+SC); 8-th group – control mice aged 5 months, was fed only a standard vivarium diet of dry meals and water throughout the experiment. The content of the corresponding molecular type of Sph in the liver of control 2-month-old mice (group 1) was used as a reference unit. The values for Sph 16:0 - 18:1(a), Sph 16:1 - 22:6 (b), Sph 20:1 - 16:0 (c), Sph 20:0 - 20:1 (d), Sph 24:0 - 18:0 (e), and Sph 24:1 - 18:0 (f) were  $1.2 \times 10^6$ ,  $1.7 \times 10^6$ ,  $1.8 \times 10^5$ ;  $1.8 \times 10^7$ ;  $1.0 \times 10^5$ , and  $1.8 \times 10^7$  (Abs. intens. [arb. units]), respectively. Data are presented as mean ( $n = 6$ )  $\pm$  SD and p-values calculated using unpaired Mann-Whitney and Kruskal tests. The statistical significance is indicated as follows: a –  $p < 0.05$  – in comparison with the 1st group, b –  $p < 0.05$  - in comparison with the 8th group; and c –  $p < 0.05$  – the 8th group in comparison with the 1st group.