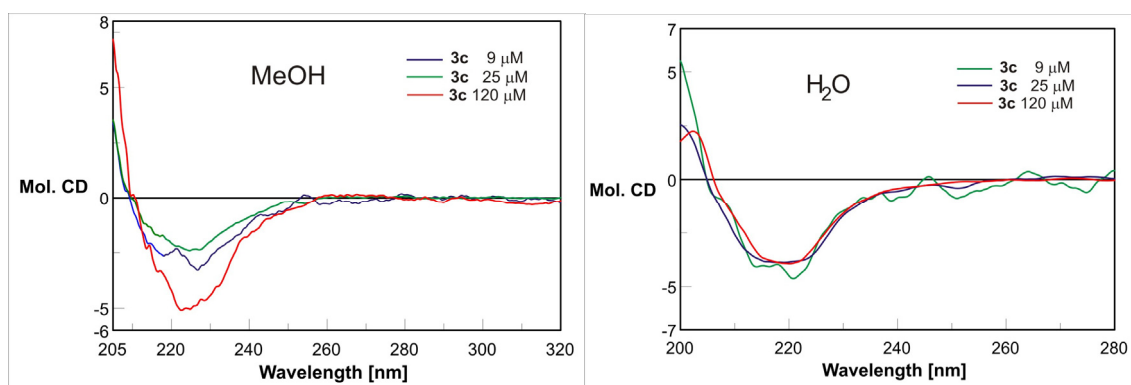
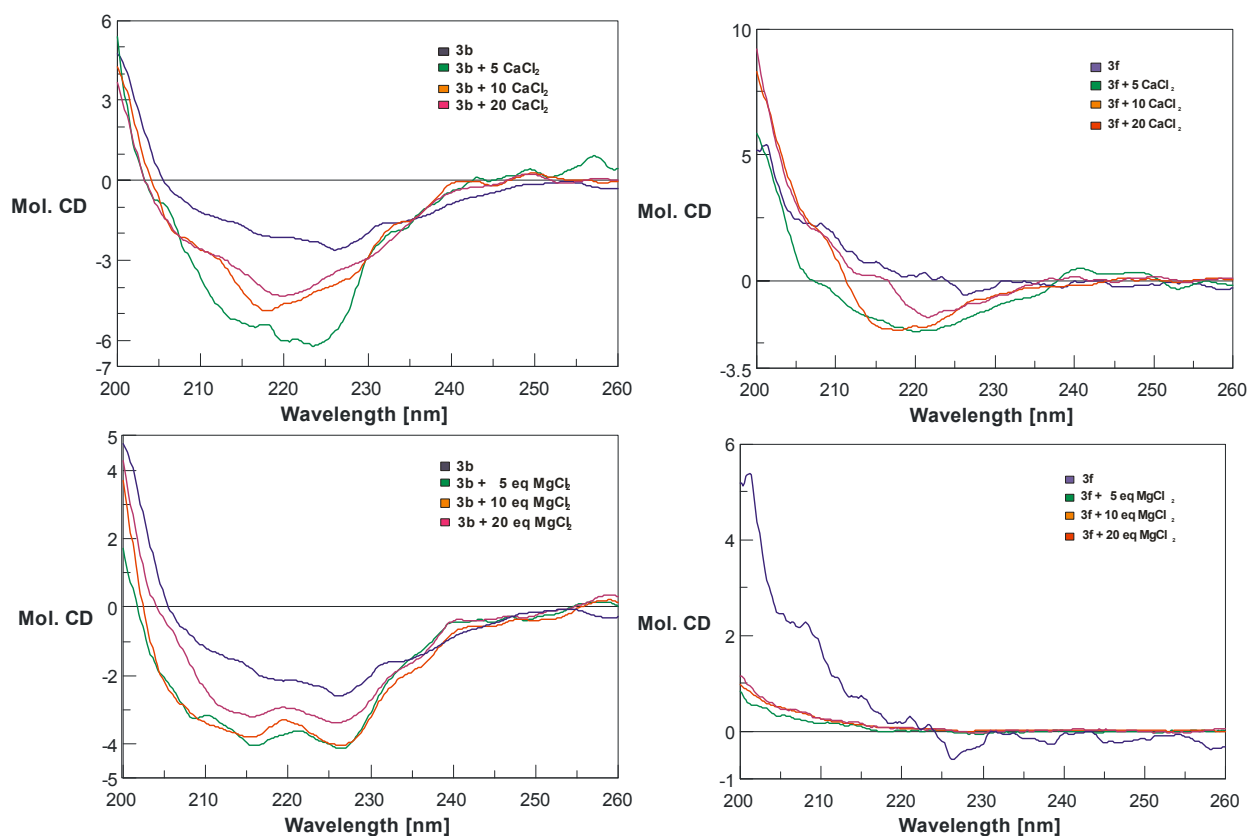


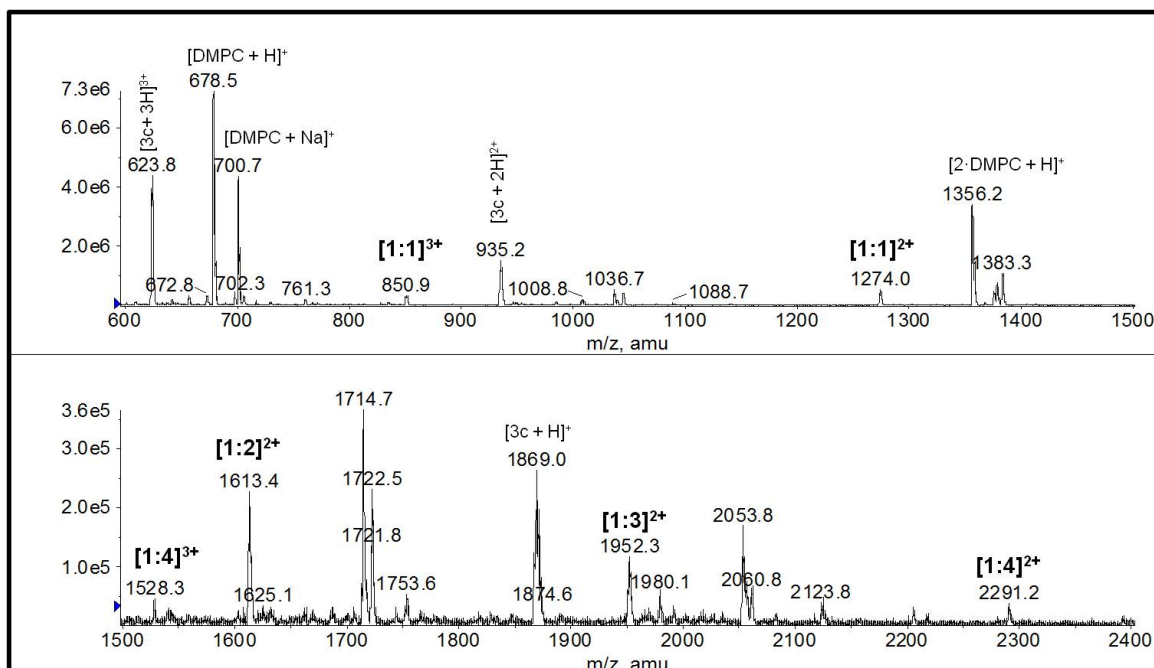
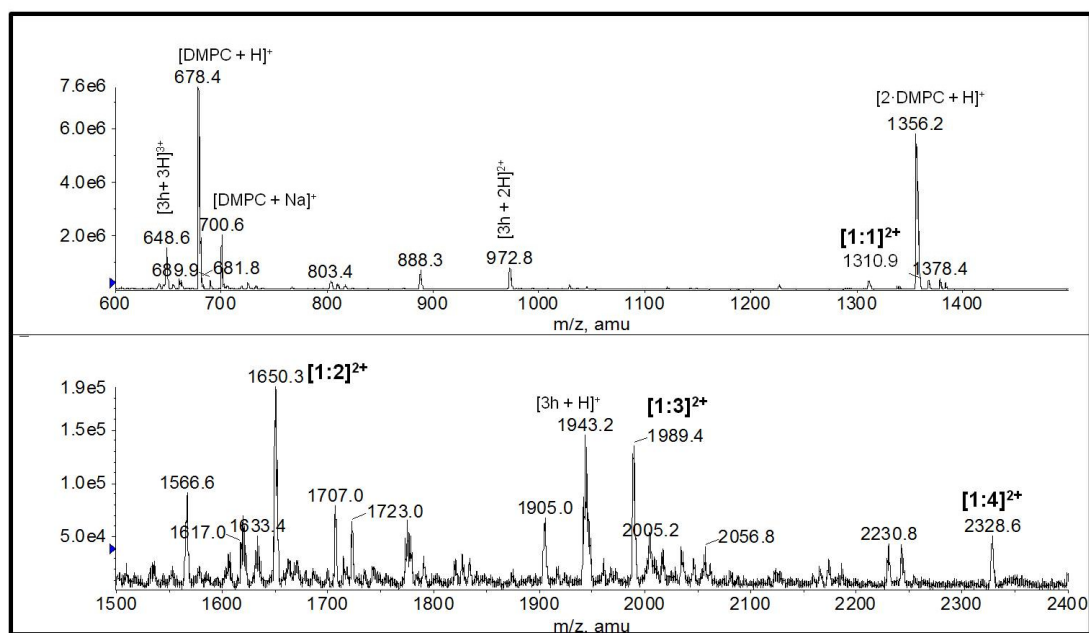
## Supplementary Materials

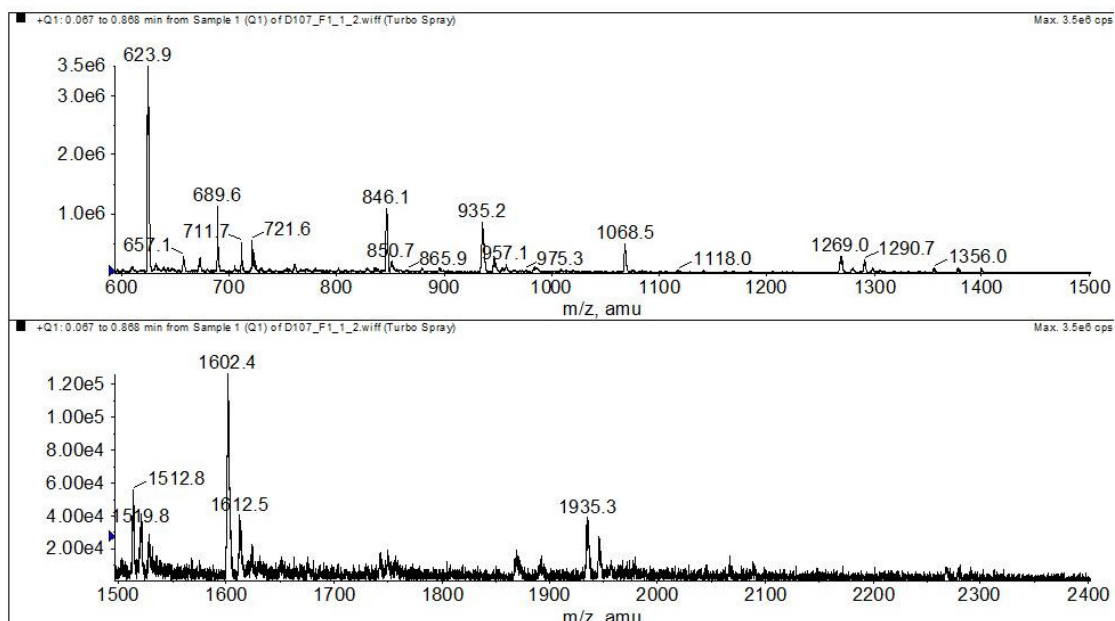
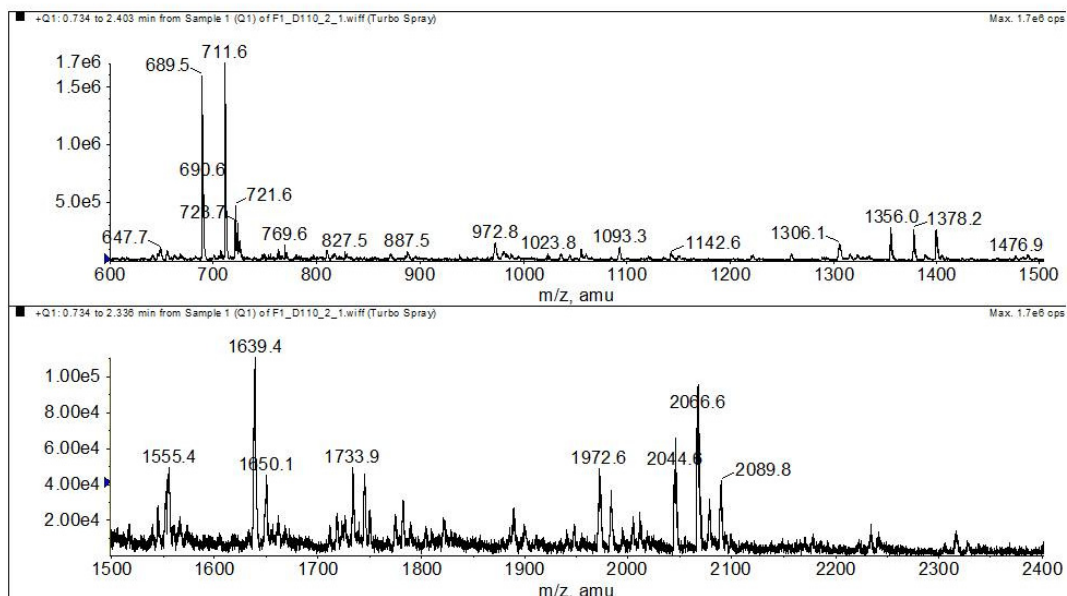
**Figure S1.** Molar ellipticity of dendrimers **3c** measured in MeOH and H<sub>2</sub>O at different concentrations.



**Figure S2.** Molar ellipticity of dendrimers **3a-3h**, measured in MeOH and selected dendrimers **3b**, **3f** in presence of 5, 10, 20-fold molar excess of CaCl<sub>2</sub>, peptide concentration ca 80 μM.

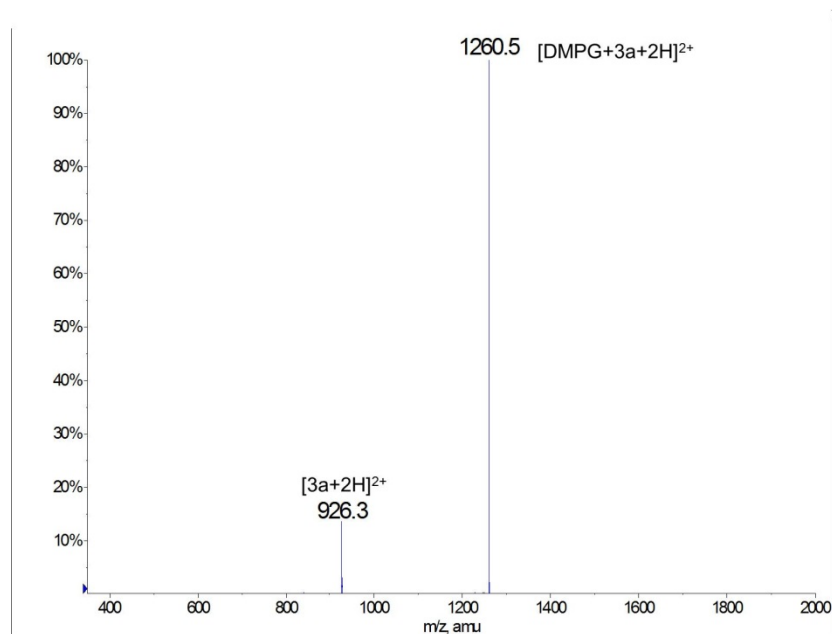


**Figure S3.** ESI MS spectra for 1:2 mixture of dendrimer **3c** with DMPC.**Figure S4.** ESI MS spectra for 1:2 mixture of dendrimer **3h** with DMPC.

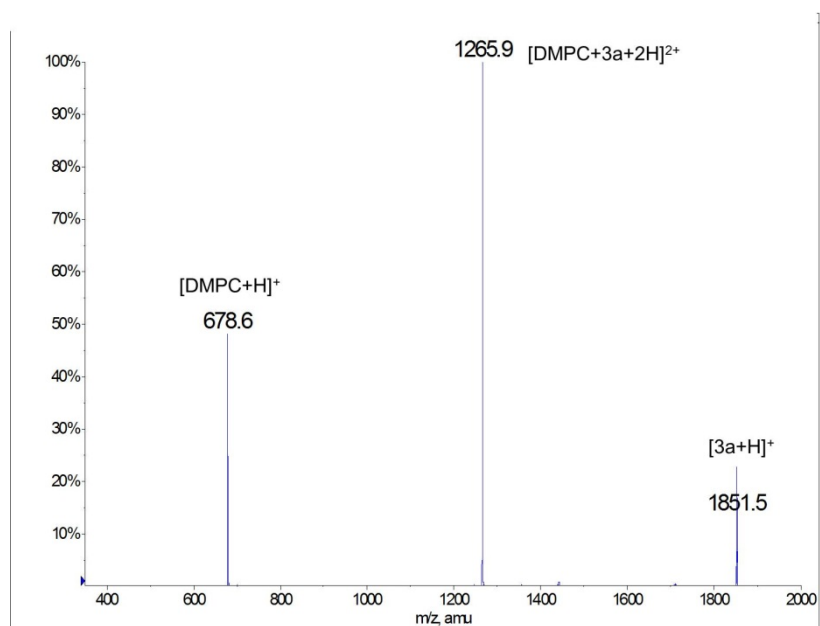
**Figure S5.** ESI MS spectra for 1:2 mixture of dendrimer **3c** with DMPG.**Figure S6.** ESI MS spectra for 1:2 mixture of dendrimer **3h** with DMPG.

**Figure S7.** Collision-induced dissociation (CID) spectra of doubly charged complexes of (a) DMPG/3a and (b) DMPC/3a complexes. The collision gas was nitrogen; collision energy was 15 eV (in the laboratory frame).

a)



b)



**Figure S8.** Dissociation efficiency curves (experiments repeated on SYNAPT G2 HDMS) of dendrimer/phospholipid [1:1]<sup>2+</sup> complexes: **(a)** DMPG/3h (red square), DMPG/3c (green triangle), DMPG/3a (blue square), DMPG/3d (cross) and **(b)** DMPC/3h (red square), DMPC/3c (green triangle), DMPC/3a (blue square), DMPC/3d (cross). The y and x axis represents the relative intensity of a complex in proportion to the sum of the intensities of the fragment ions and center-of-mass collision energy under single collision conditions, respectively.

