

## Supporting information

# Synthesis and Micellar Self-Assembly of Ternary, Hydrophilic-Lipophilic-Fluorophilic Block Copolymers with a Linear PEO Chain Block

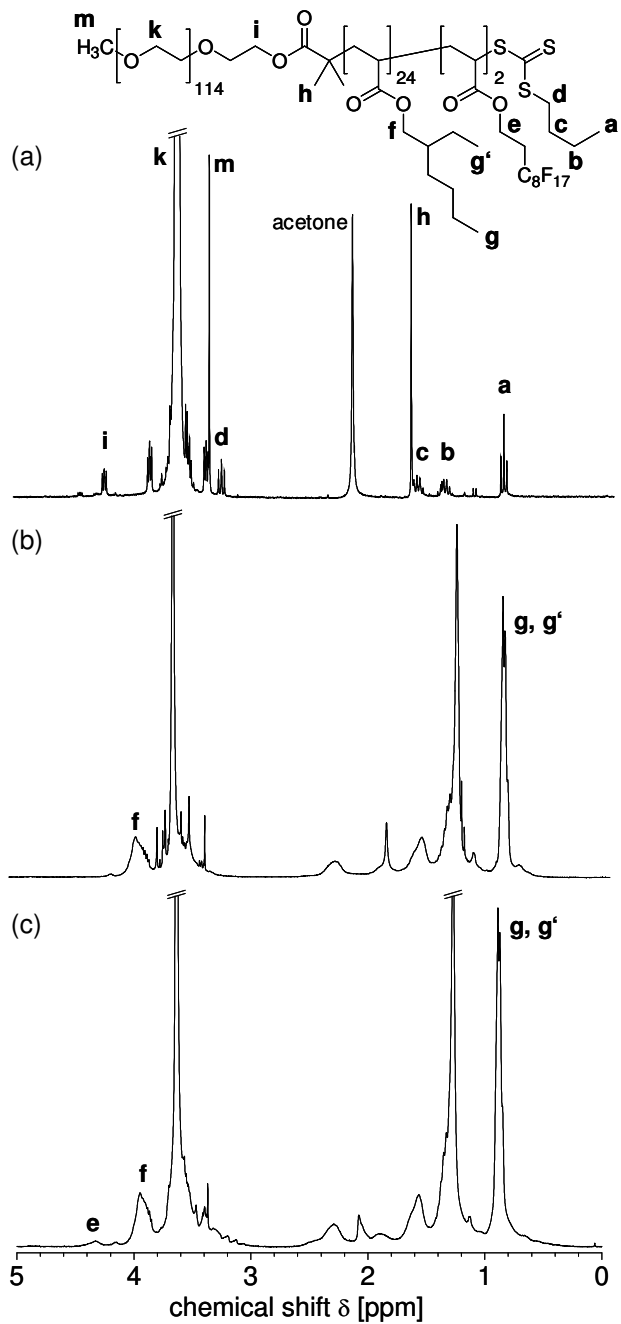
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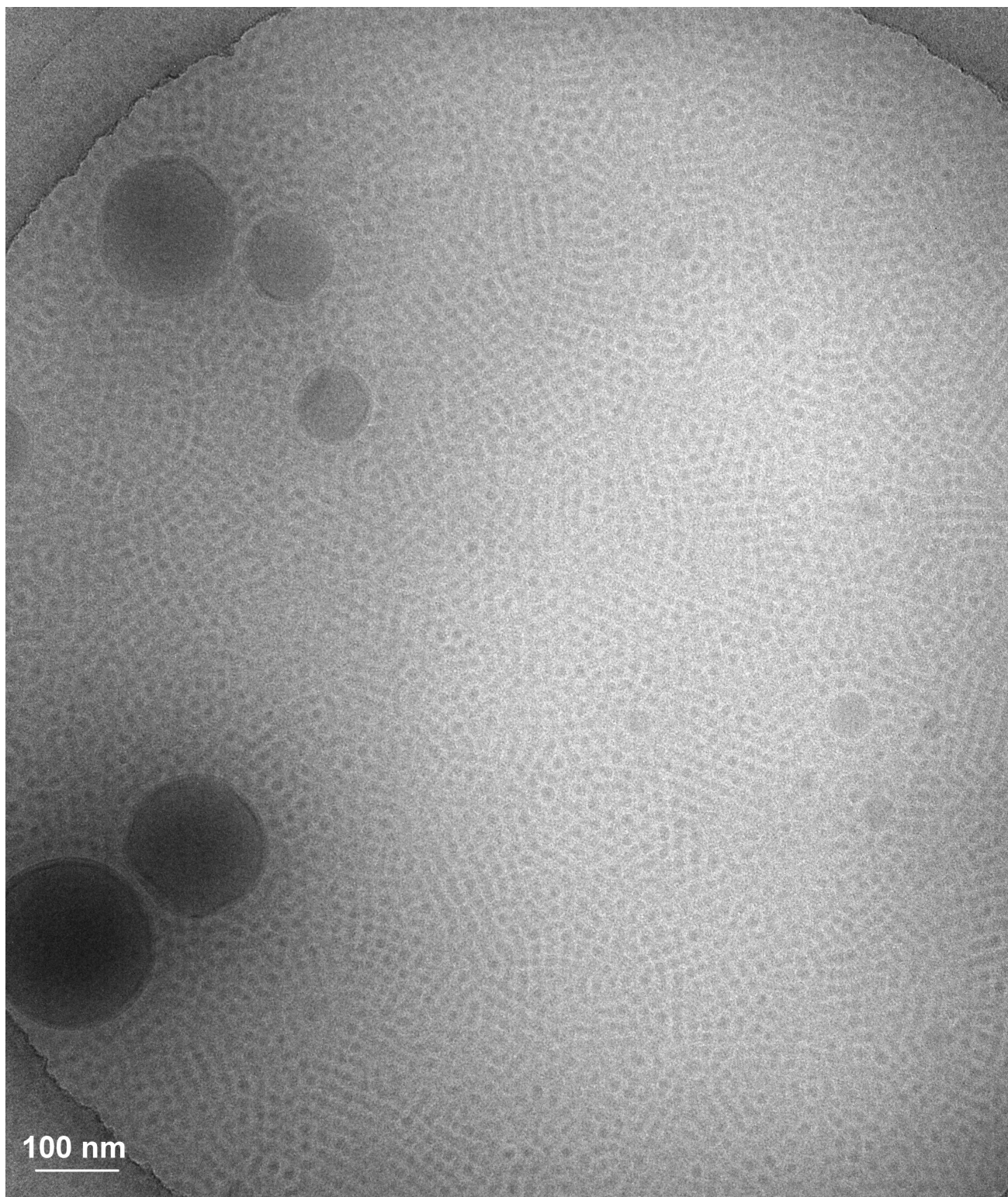
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**Figure S1.**  $^1\text{H}$  NMR spectra of (a) macro RAFT agent **PEO-CTA**, (b) precursor **PEO-b-(EHA)<sub>24</sub>**, and (c) **PEO-b-(EHA)<sub>24</sub>-b-(FA)<sub>2</sub>** in  $\text{CDCl}_3$ .



**Figure S2.** Cryo-TEM micrograph of 0.5 wt% aqueous dispersion of triblock copolymer **PEO-b-(BuA)<sub>22</sub>-b-(FA)<sub>2</sub>** dispersed at 25 °C (protocol A).

The coexistence of some large colloidal aggregates with a majority of small aggregates in Figure S2 is

interesting to note, but is not understood. It rises a number of interesting questions, which outpass our study, but concern most investigations of the aggregation of amphiphilic block copolymers in aqueous solution. On the one hand, it is not clear whether the large aggregates are equilibrium structures, or not. They are at least kinetically stable, as they do not vanish on storage or annealing. If they were true equilibrium structures, their occurrence could be caused by the polydispersity of the block copolymers, or possibly by the presence of a certain amount of contaminating amphiphilic diblock copolymer which could not be removed. Still, on the basis of our experimental data, we can only speculate about the reasons.

