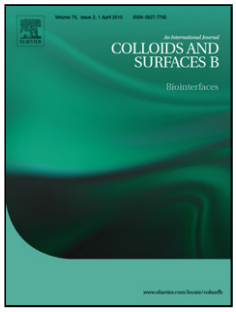


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# Protein Adsorption and Macrophage Uptake of Zwitterionic Sulfobetaine Containing Micelles

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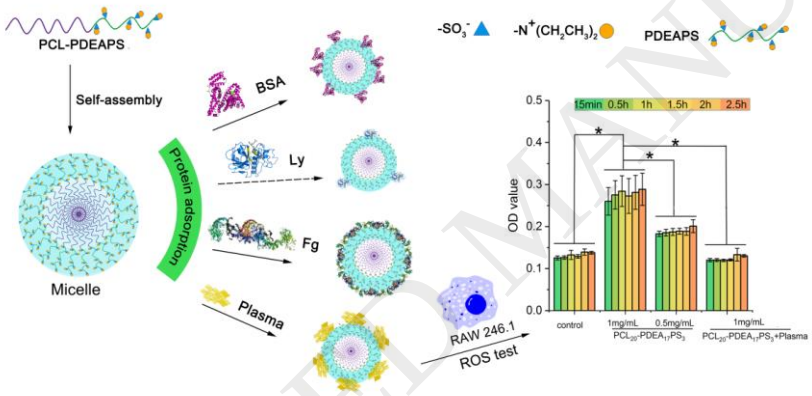
Graphical abstract




**Highlights**

- Self-assembled PCL-PDEAPS micelles containing zwitterionic sulfobetaine
- The micelles present nano-size, positive zeta potential, and very low CMC
- Larger adsorption of negatively charged proteins on PCL-PDEAPS than on PCL-PEG
- The adsorption amount increases with increasing zwitterionic content
- Denaturation of proteins is not detected during adsorption and detachment processes

Abstract:

Micelles of poly(ε-caprolactone)-*b*-poly((N,N-diethylaminoethyl methacrylate)/(N-(3-sulfopropyl-N-methacryloxyethy-N,N-diethylammonium betaine)) (PCL-PDEAPS) and poly(ε-caprolactone)-*b*-poly(ethylene glycol) (PCL-PEG) were prepared and characterized. The interactions of micelles with model proteins such as bovine serum albumin (BSA), lysozyme (Ly),