Fluorescence as a Probe of (-)-Epigallocatechin Gallate-Serum Albumin Interactions

Supplemental Information

Min Li and Ann E. Hagerman*

Department of Chemistry & Biochemistry, Miami University, Oxford, OH 45056

*Corresponding author. hagermae@miamioh.edu, 513-529-2827 (voice) 513-529-5715 (FAX)

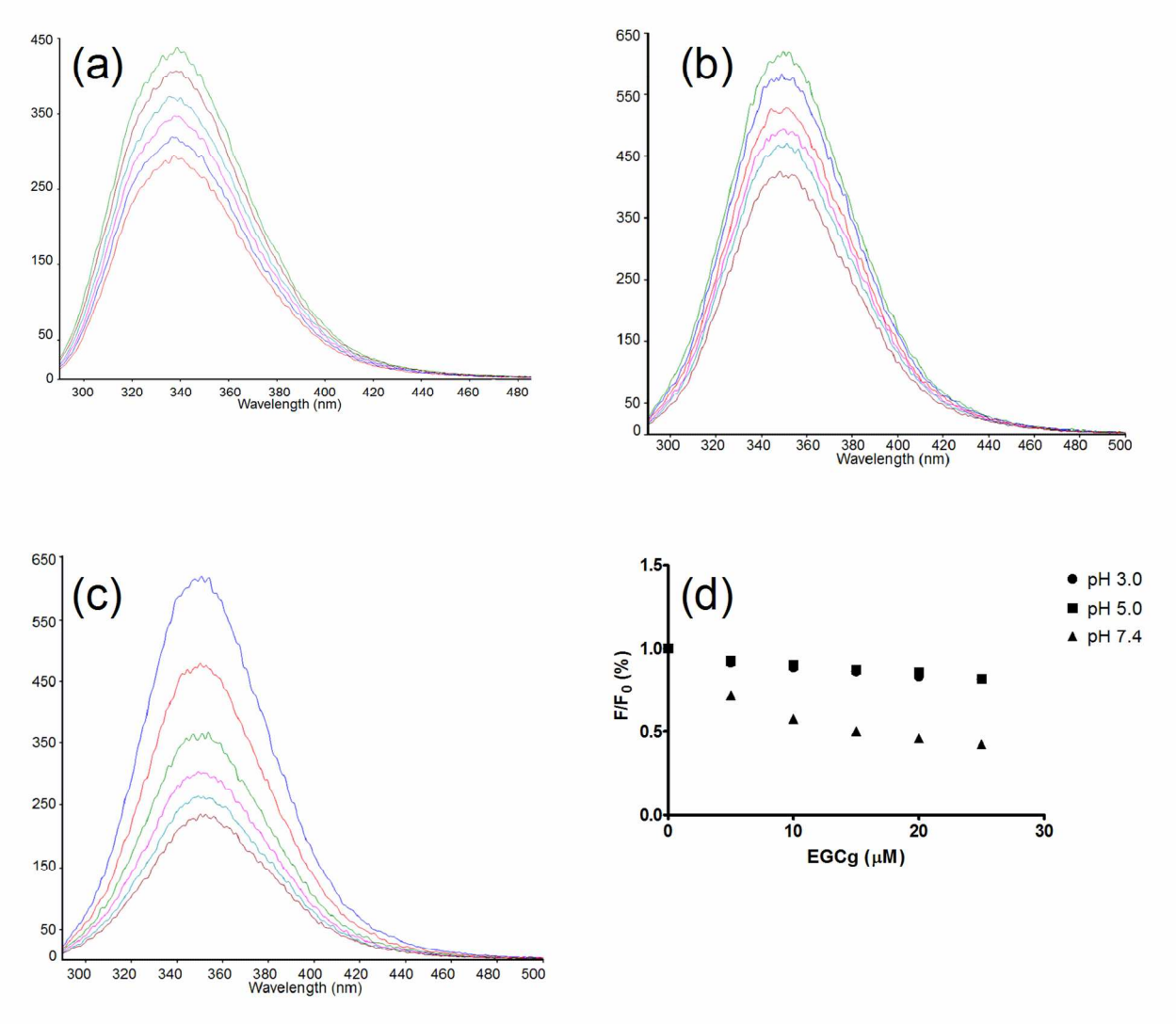
Captions for Supplemental Figures

Supplemental Figure 1. Quenching of 3 μM BSA by MG. All fluorescence intensities were corrected by equation 1 with a λ_{ex} = 280 nm and a λ_{em} = 350 nm, and the concentrations of MG were 0, 5, 10, 15, 20 and 25 μM. Changes in the emission spectra of BSA were measured at (a) pH 3.0, (b) pH 5.0, and (c) pH 7.4. (d) The efficiencies of quenching were compared at pH 3.0 (●), 5.0 (■), and 7.4 (▲) by plotting the relative fluorescence intensity (F/F_0*100) against EGCg concentration.

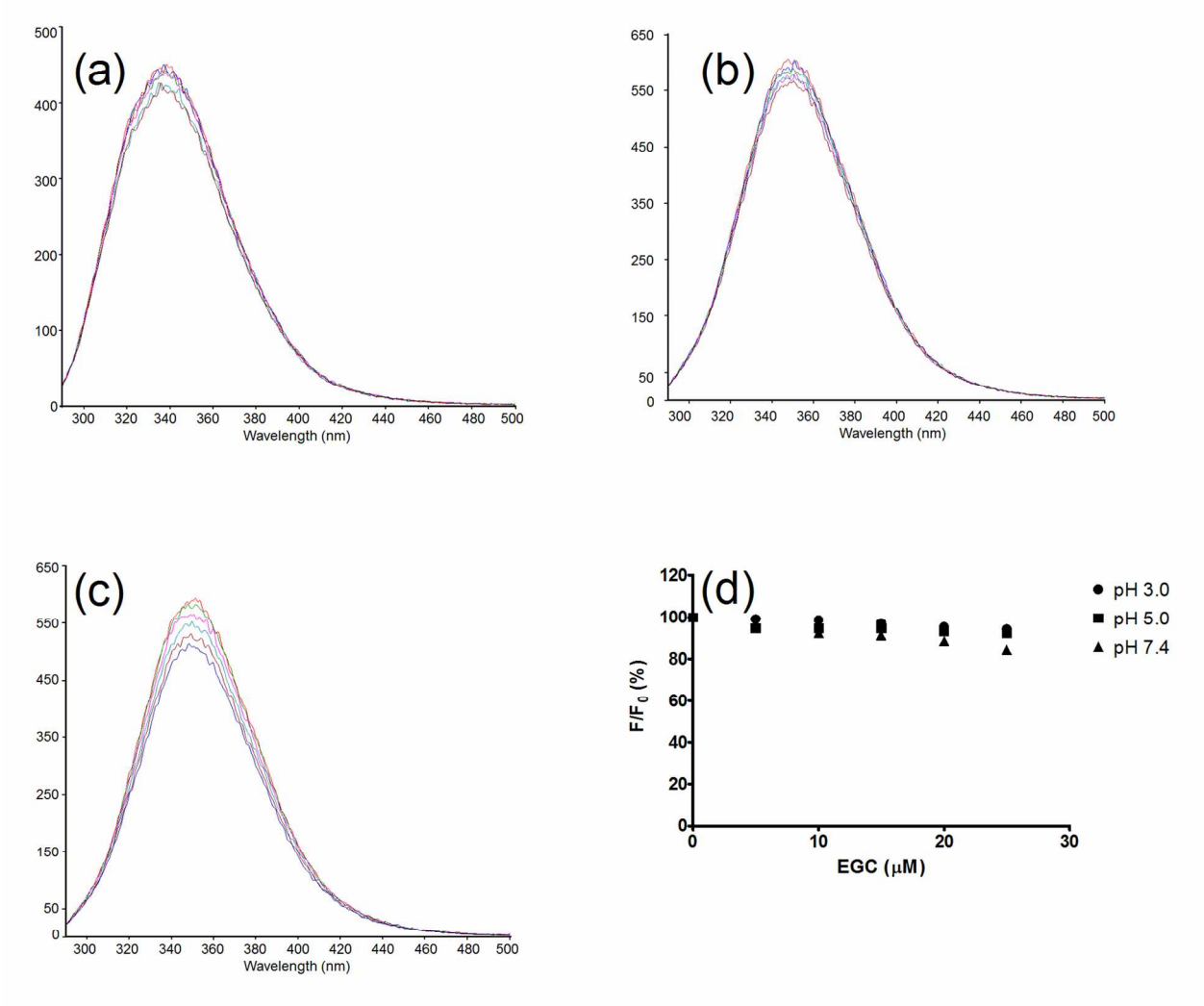
Supplemental Figure 2. Quenching of 3 μM BSA by EGC. All fluorescence intensities were corrected by equation 1 with a λ_{ex} = 280 nm and a λ_{em} = 350 nm, and the concentrations of EGC were 0, 5, 10, 15, 20 and 25 μM. Changes in the emission spectra of BSA were measured at (a) pH 3.0, (b) pH 5.0, and (c) pH 7.4. (d) The efficiencies of quenching were compared at pH 3.0 (●), 5.0 (■), and 7.4 (▲) by plotting the relative fluorescence intensity (F/F_0*100) against EGCg concentration.

Supplemental Figure 3. Competitive binding experiments between the drugs TB or PB and EGCg. BSA (30 μM) was incubated at pH 7.4 with EGCg (25 μM) and either PB or TB (0-900 μM) for 40 min at room temperature. EGCg-BSA binding was determined by assessing the BSA-induced stabilization of EGCg, and is expressed as a % of the amount bound in absence of inhibitor.

Supplemental Figure 1



Supplemental Figure 2



Supplemental Figure 3