

Metal Retention in Human Transferrin: Consequences of Solvent Composition in Analytical Sample Preparation Methods

C. Derrick Quarles Jr., K. Manoj Randunu, Julia L. Brumaghim, R. Kenneth Marcus*

Department of Chemistry, Biosystems Research Complex, Clemson University
Clemson, South Carolina 29634-0973, USA

SUPPLEMENTARY INFORMATION

UV-VIS Spectra: UV-VIS spectroscopy was used to monitor the loss of iron from Tf under extreme pH conditions and due to urea addition (Figs. S1 and S2).

Circular Dichroism Spectra: CD spectroscopy was used to monitor the denaturing effects of guanidinium on the Fe-Tf complex (Fig. S3).

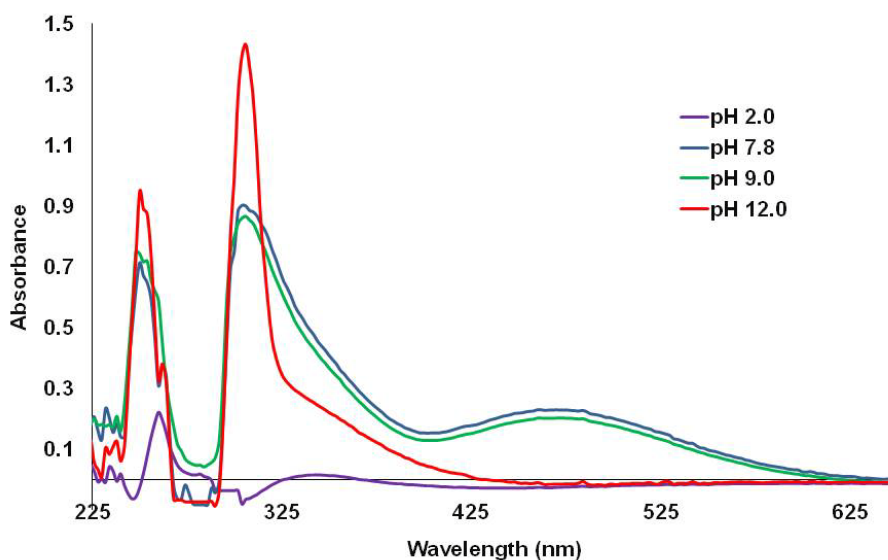


Fig. S1. UV-VIS spectra showing the effect of pH on Fe³⁺ retention in holo-Tf. Apo-Tf absorbances were subtracted from the Fe³⁺-Tf absorbance spectra to better show absorbances resulting from iron binding.

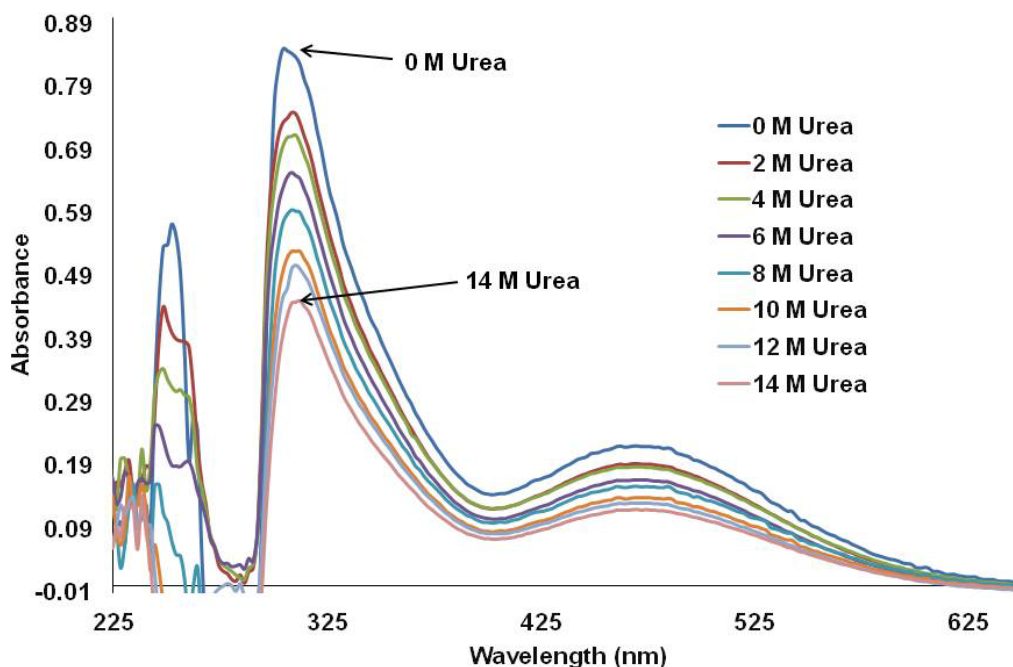


Fig. S2. UV-VIS absorbance spectra showing the effects of urea addition (0 – 14 M) on holo-Tf (50 μ M). Apo-Tf absorbances were subtracted from the Fe³⁺-Tf absorbance spectra to better show absorbances resulting from iron binding.

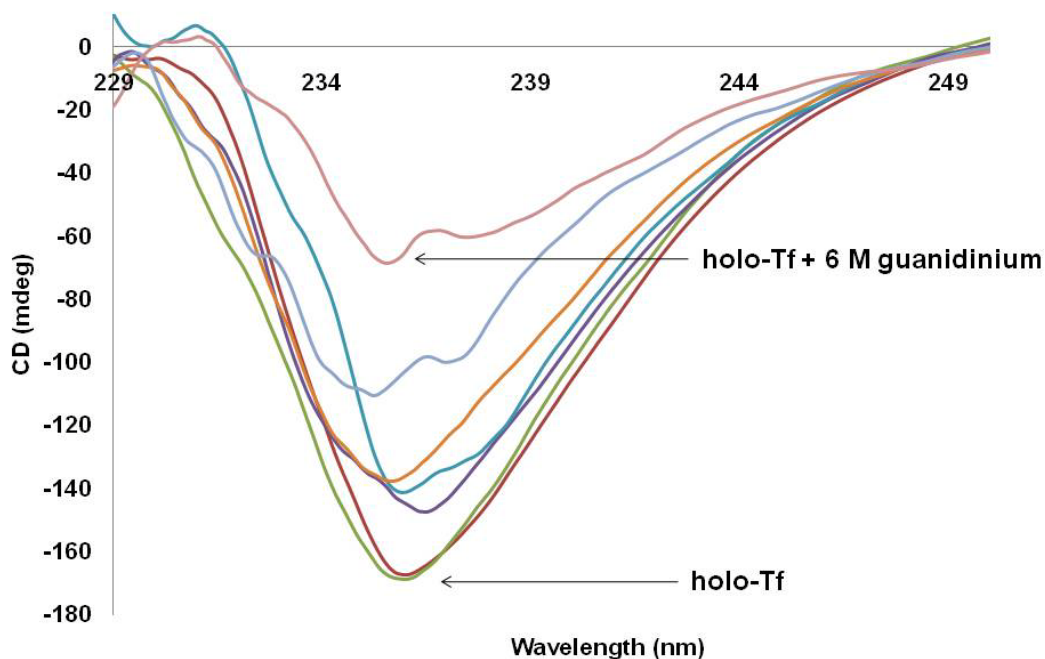


Fig. S3. CD spectra displaying the change in optical activity of holo-Tf (50 μ M) upon addition of guanidinium (0 – 6 M).