

Title: Determination of the affinity constant of citrate to Titanium(IV) Bound Human Serum Transferrin(sTf) via equilibrium dialysis.

Abstract: The affinity constant of citrate to titanium(IV) bound human serum transferrin(sTf) will be determined utilizing equilibrium dialysis. By equilibrating the titanium(IV) bound human serum transferrin with buffers with citrate concentrations ranging from 10 μ M to 100 μ M it is believed to be possible to calculate the affinity constant of this molecule to the aforementioned complex. Due to the observed diminished titanium(IV) cytotoxicity in the presence of the Ti₂Sf(cit)₂ complex, exploring the relationship between citrate and titanium(IV) bound human serum transferrin proves to be an important step in the development of titanium based anti-cancer drugs.