## **Supporting Information**

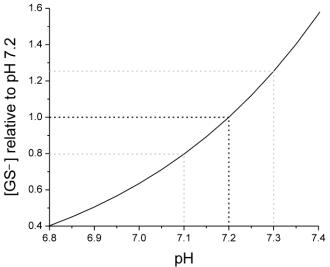


Figure S1. Variation of the concentration of the thiolate form of GSH near physiologic pH. Relative abundance of the nucleophilic thiolate form of GSH (GS $^-$ ) as a function of pH; values are normalized to [GS $^-$ ] at pH 7.2 (indicated by the black dotted line). As shown by the gray dotted lines, shifting pH by  $\pm$  0.1 causes [GS $^-$ ] to change by more than  $\pm$  20%. The values were computed using the microscopic proton dissociation constants of GSH, as previously described  $^4$ .