

Electronic supplementary information

**A new fluorescence “switch on” assay for heparin detection by using
a functional ruthenium polypyridyl complex**

Ting-Ting Cheng,[‡] Jun-Liang Yao,[‡] Xing Gao, Shuo Shi* and Tian-Ming Yao*

* Department of Chemistry, Tongji University, Shanghai 200092, China. E-mail:
tmyao@tongji.edu.cn

[‡] These authors contributed equally to this work.

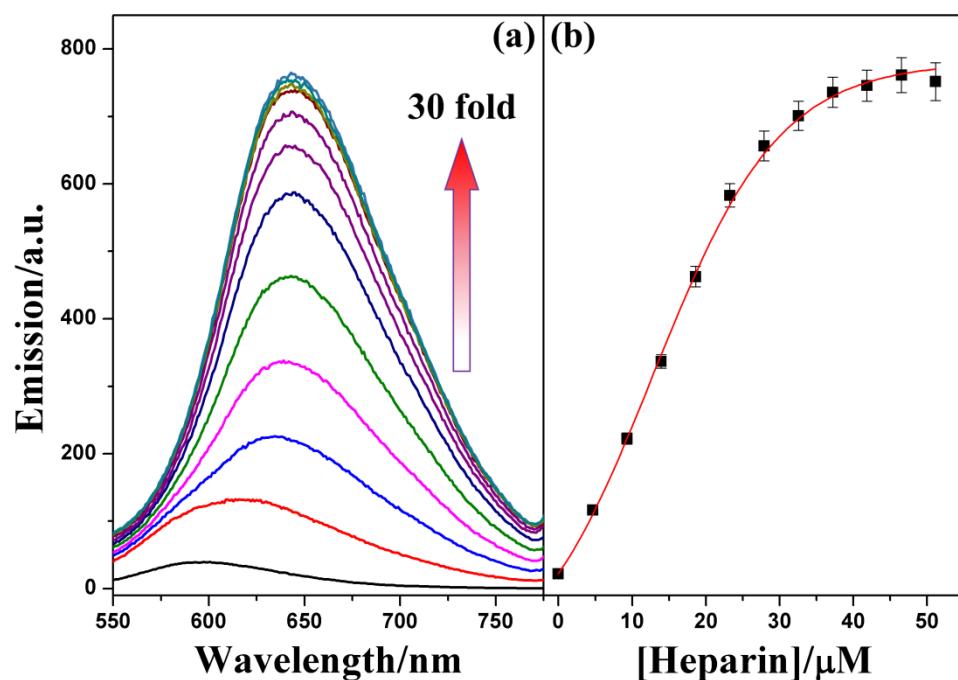


Fig. S1 (a) Changes in emission spectra ($\lambda_{\text{ex}} = 405$ nm) of complex **2** (50 μM) in 50 mM Tris-HCl buffer solution (pH 7.5) upon successive addition of heparin (0 ~ 56 μM). (b) Variation of the fluorescence intensity of complex **2** (50 μM in 50 mM Tris-HCl, pH 7.5) at 630 nm with continuous heparin titration (0 ~ 56 μM).

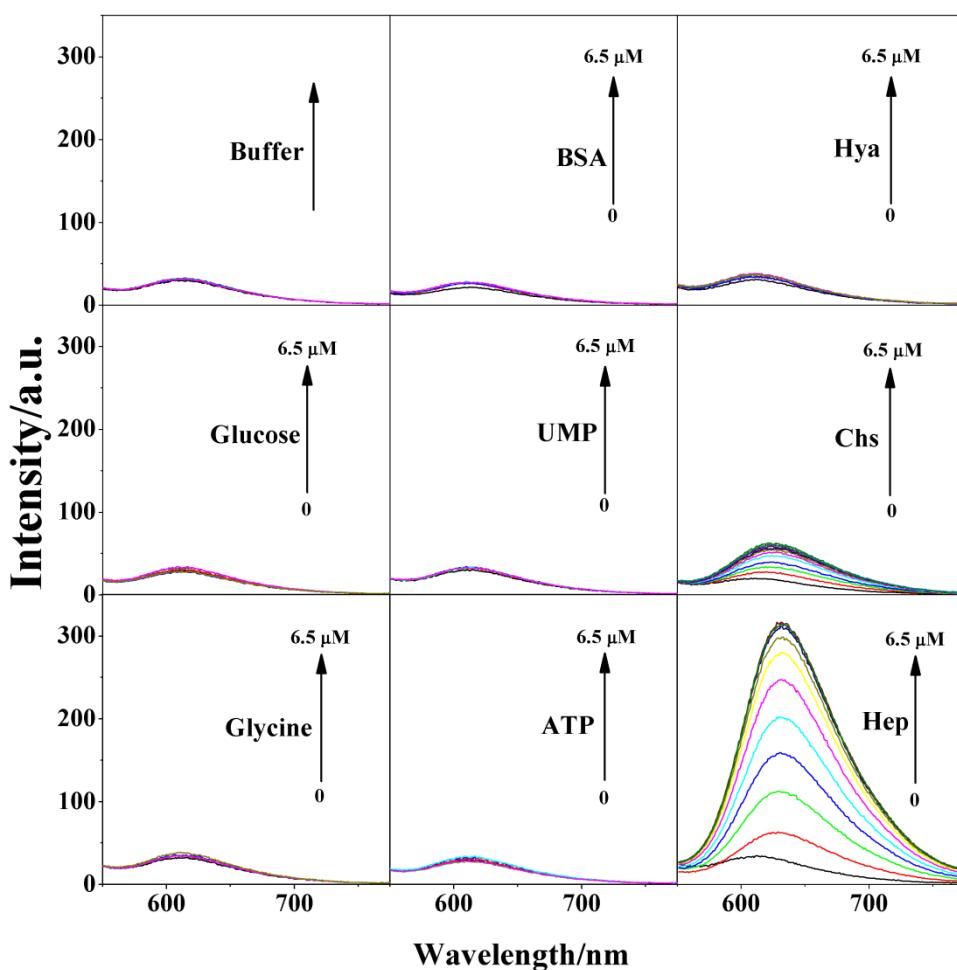


Fig. S2 Fluorescence titration details of complex **1** with some important biological molecules in 50 mM Tris-HCl buffer solution (pH 7.5). The concentration of complex **1** was 5 μ M and kept constant. The amount of each biological molecule (BSA, glucose, UMP, glycine, ATP, Chs, Hya, and heparin) was gradually increased until there was almost no change in the spectra.

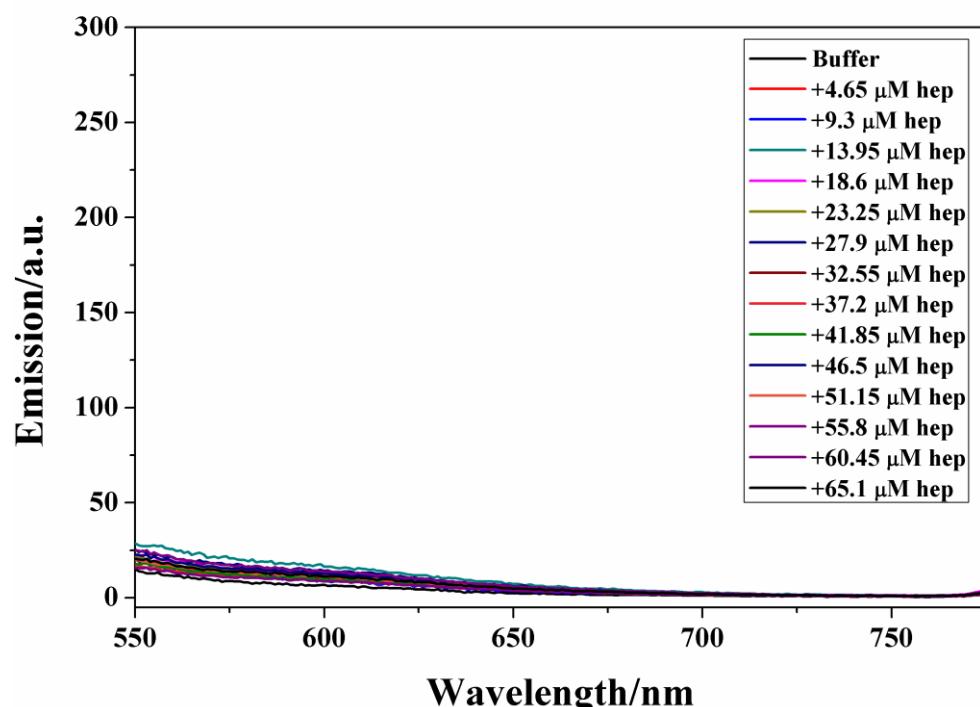


Fig. S3 Fluorescence titration of FBS containing buffer solution (1 % FBS in 50 mM Tris-HCl buffer, pH 7.5) with continuous addition of heparin (0 ~ 65 μ M).

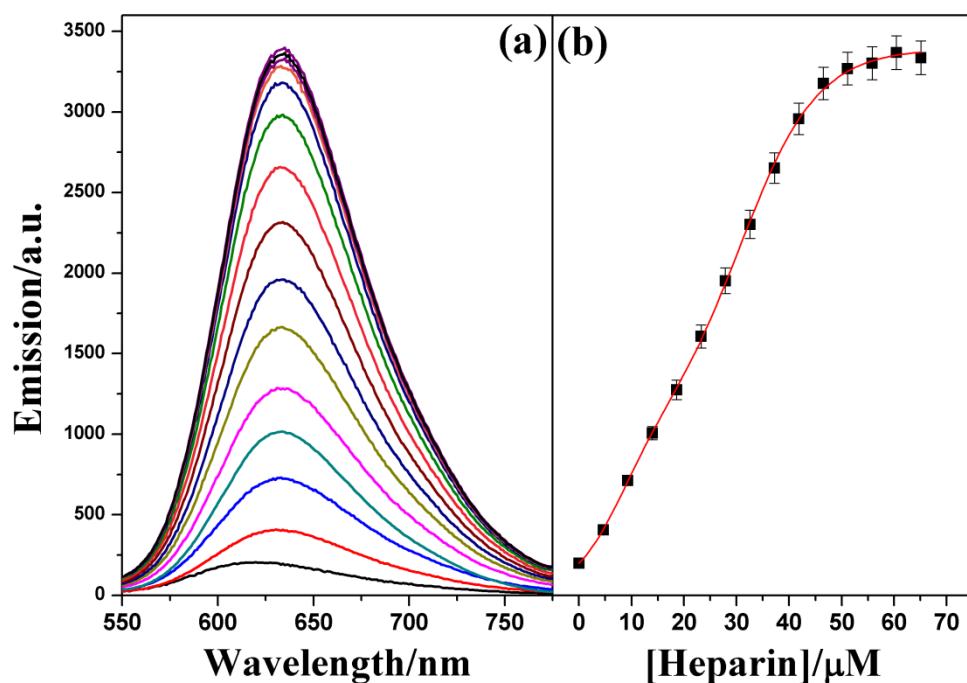


Fig. S4 (a) Changes in emission spectra ($\lambda_{\text{ex}} = 405$ nm) of complex 1 (50 μ M) in diluted FBS solution (1 % FBS in Tris-HCl buffer solution (50 mM Tris-HCl, pH 7.5)) upon successive addition of heparin (0 ~ 56 μ M). (b) Variation of the fluorescence intensity of complex 1 at 630 nm with continuous heparin titration (0 ~ 56 μ M).