

**Quantification of foscarnet with chromogenic and fluorogenic chemosensors:
indicator displacement assays based on metal ion coordination with catechol
ligand moiety**

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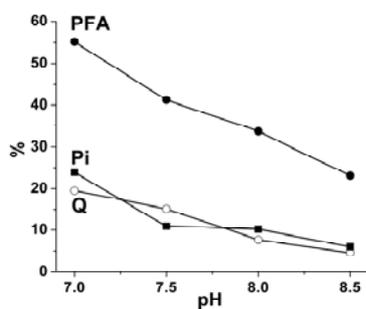
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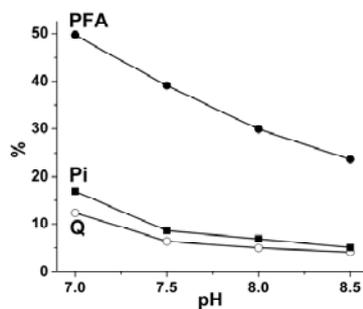
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Electronic Supplementary Information

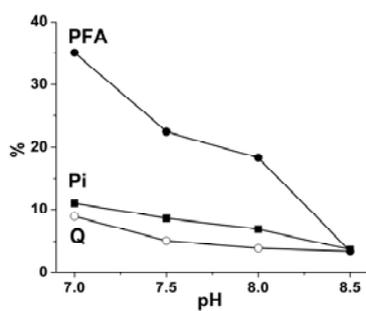
a)



b)



c)



d)

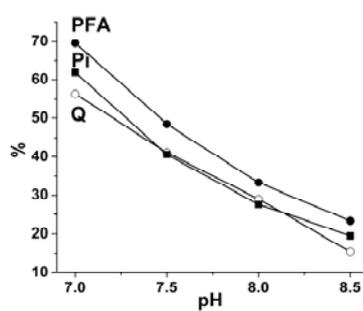
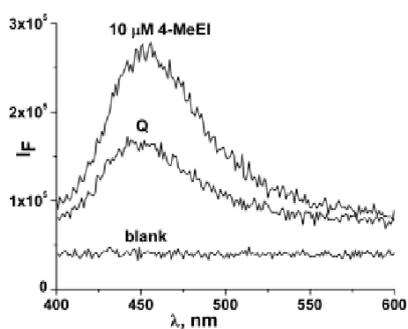


Figure S1. Residual fluorescence $[(I_F - I_{\text{background}})/(I_{\text{max}} - I_{\text{background}}) \cdot 100\%]$ at 455 nm after the addition of 10 μM of Cu^{2+} and 10 μM of the ligand (Q) to the 10 μM of 4-methylesculetin, and after subsequent addition of 10 μM of PFA (PFA) or 0.9 mM of P_i (P_i) in 10 mM HEPES buffer (pH 7.0, 7.5, and 8.0) or in 10 mM CHES buffer (pH 8.5). The bidentate ligands are *en* (a), *pca* (b), *phen* (c), and *tir* (d). The excitation wavelength is 375 nm.

a)



b)

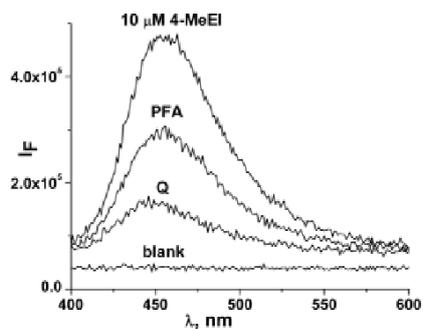


Figure S2. The fluorescence spectra of 4-methylsculetin (1, 10 μM) in MES buffer (10 mM, pH 6.0) (a) and MES buffer (10 mM, pH 6.5) (b). The quenched spectra (Q) are shown after 10 μM [Cu(pca)]²⁺ addition and fluorescence reappearance upon subsequent addition of 10 μM of PFA. The excitation wavelength is 375 nm.

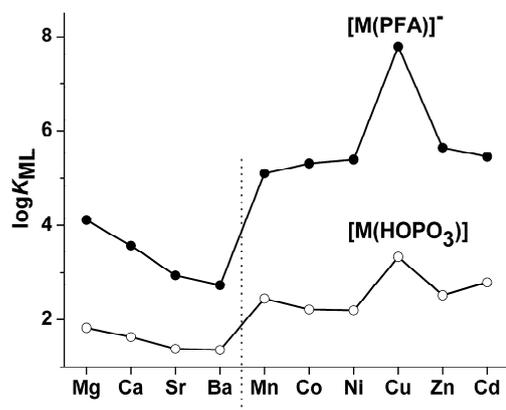


Figure S3. The logarithm of complex formation constant with PFA ($(\text{O})_2\text{POCO}(\text{O})^{3-}$) and phosphate (HOPO_3^{2-}) is shown for various divalent metal cations (M^{2+}). Data points are previously reported values by H. Sigel and coworkers^{14a, 21} and depicted in this figure to illustrate the high stability of the Cu-complex.