Supplementary data

Selective colorimetric and “turn-on” fluorimetric detection of cyanide using an acylhydrazone sensor in aqueous media

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Figure S1. 

$^1$H NMR spectra of L.

$^1$H NMR (400 MHz, DMSO) 
δ :12.54 (s, 1H), 12.42 (s, 1H), 9.49 (s, 1H), 8.85 (d, $J = 4.3$ Hz, 2H), 8.33 (d, $J = 8.5$ Hz, 1H), 8.08 – 7.74 (m, 4H), 7.64 (t, $J = 7.6$ Hz, 1H), 7.43 (t, $J = 7.3$ Hz, 1H), 7.26 (d, $J = 8.9$ Hz, 1H).
Figure S2. ESI-MS spectra of L.
Figure S3. ESI-MS spectra of \([\text{L-2H+Na}^+ + \text{H}]^+\).
Figure S4

Figure S4. $^{13}$C NMR spectra of L.
Figure S5. Effect of pH on the a) UV-vis and b) fluorescence spectra of L (2.0×10⁻⁵ M) and L in response to CN⁻ (50 equiv.) from 1 to 12 in DMSO/H₂O (6:4, v/v, containing 0.01 M HEPES) solution.
Figure S6

Figure S6. a) UV-vis spectrum b) Fluorescence spectrum of the sensor L (2×10^{-5} M) and in presence of 50 equiv. of F^- and CN^- in the DMSO.
Figure S7

Figure S7. c) UV-vis spectrum d) Fluorescence spectrum of the sensor L (2×10⁻⁵ M) and in presence of 50 equiv. of OH⁻ and CN⁻ in the DMSO/H₂O (6:4, v/v).