§ Electronic supplementary information (ESI):

(1) Experimental procedure of H₂L: This Schiff base ligand was synthesized with 5-bromo-2-hydroxy-3-methoxybenzaldehyde (4.62g, 0.02mol) and 1,3-diaminopropane (0.83 ml, 0.01mol) in ethanol (60 ml) according to well-established procedures.¹⁰ Yield 3.52 g, 70 %. $^1$H NMR (400 MHz, CD₃OD): δ (ppm) 2.022 (p, 2H), 3.673 (t, 4H), 3.784 (s, 6H), 7.099 (s, 2H), 7.200 (s, 2H), 8.517 (s, 2H).

(2) Figure S1. 2D-COSY spectrum of 1 in CD₃OD.
(3) Figure S2. Crystal structure of 2: (Thermal ellipsoids are drawn at the 25% probability level. Hydrogen atoms are omitted for clarity)