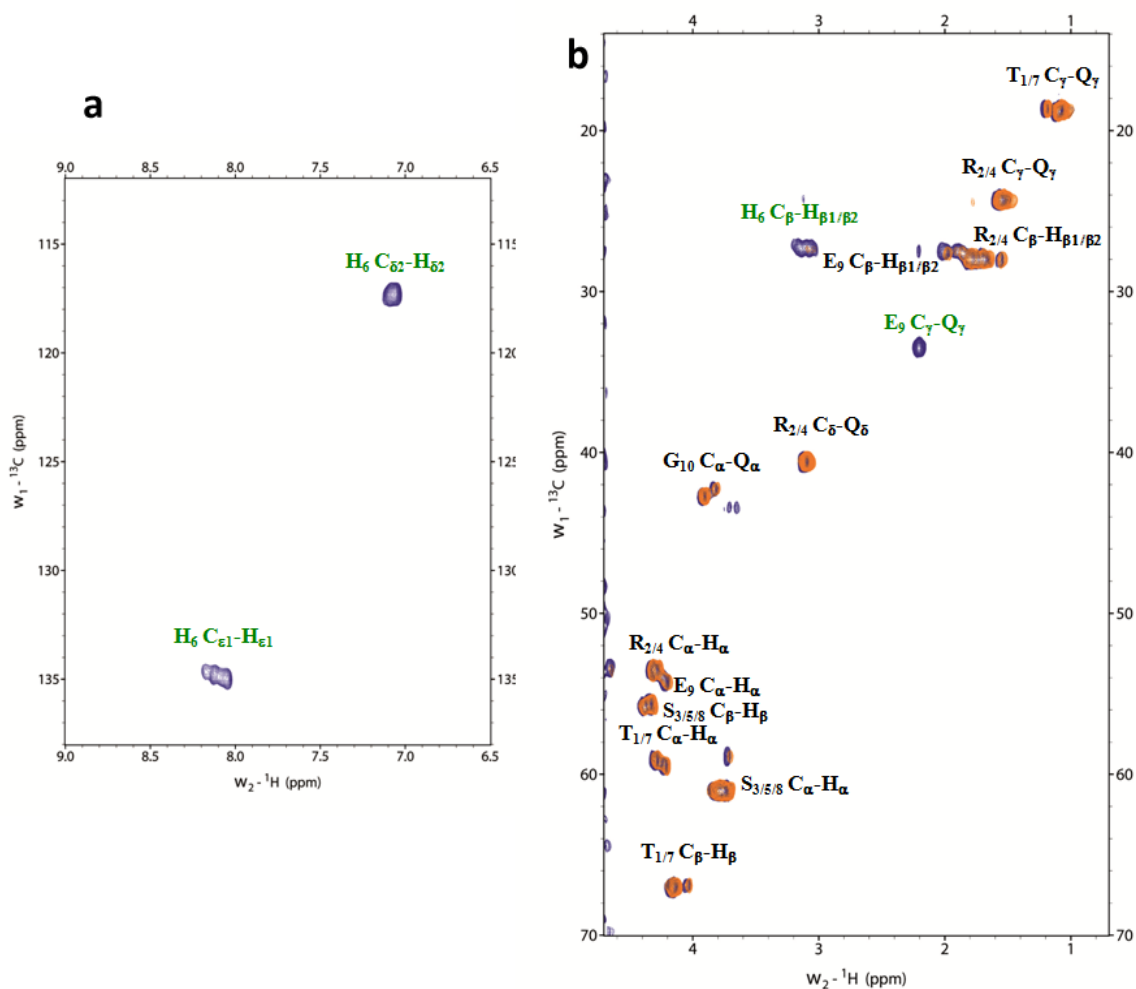


## Supplementary Materials

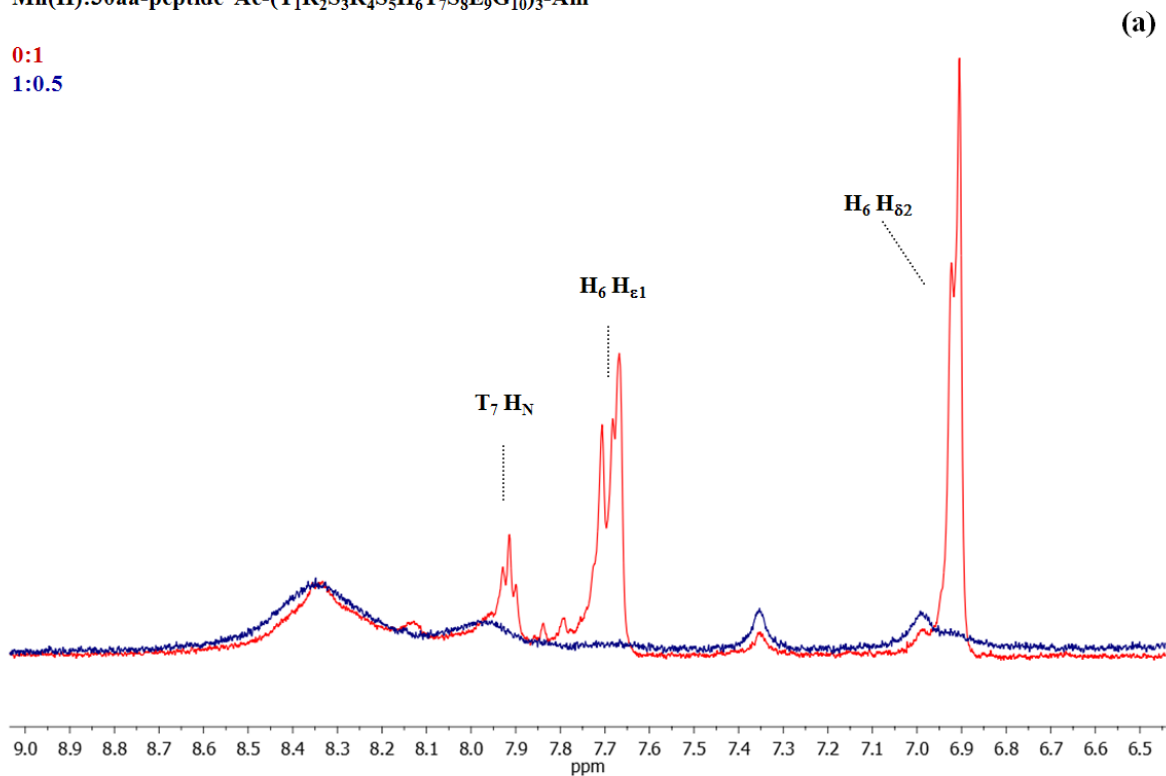
**Fig. 1s** Aromatic (a) and aliphatic region (b) of  $^1\text{H}$ - $^{13}\text{C}$  HSQC NMR spectra of the multi-histidine peptide, 2.5 mM, pH 6.2, T 298 K in the absence (blue) and in the presence of 0.5 equivalent of Mn(II) (orange). Disappearing peaks are green-labeled.



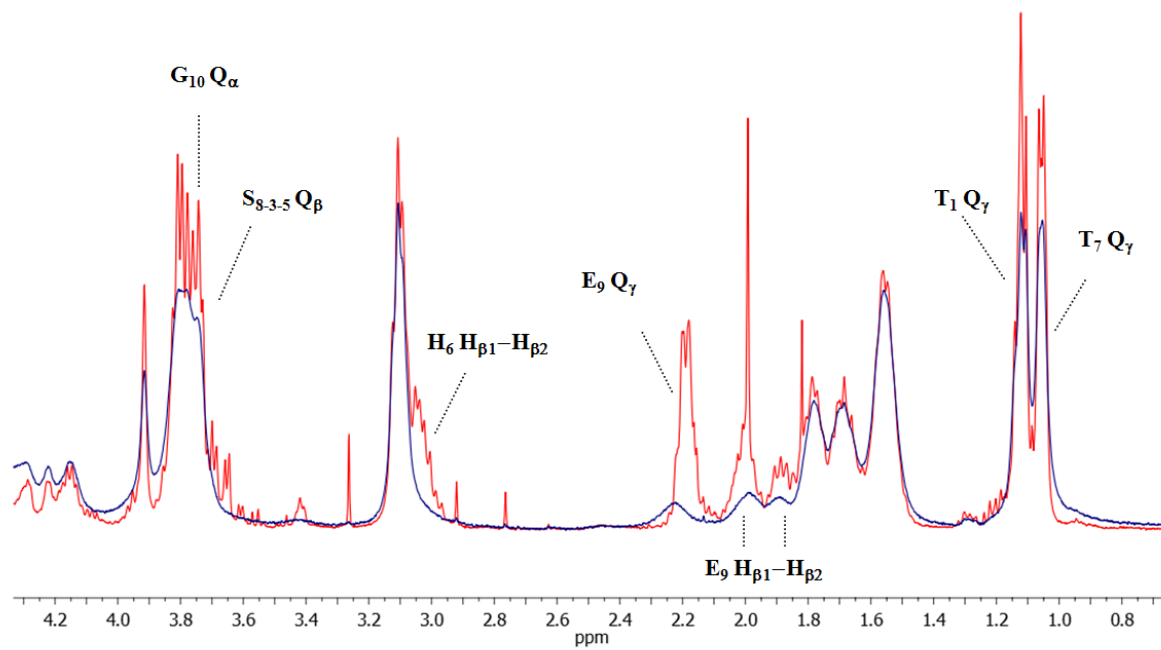
**Fig. 2s** Aromatic (a) and aliphatic region (b) of  $^1\text{H}$  NMR spectra of the multi-histidine-glutamate peptide, 2.5 mM, pH 7.4,  $T=298\text{K}$  in the absence (red) and in the presence of 0.5 equivalent of  $\text{Mn(II)}$  (blue).

$\text{Mn(II)}:30\text{aa-peptide Ac-(T}_1\text{R}_2\text{S}_3\text{R}_4\text{S}_5\text{H}_6\text{T}_7\text{S}_8\text{E}_9\text{G}_{10})_3\text{-Am}$

0:1  
1:0.5



(b)

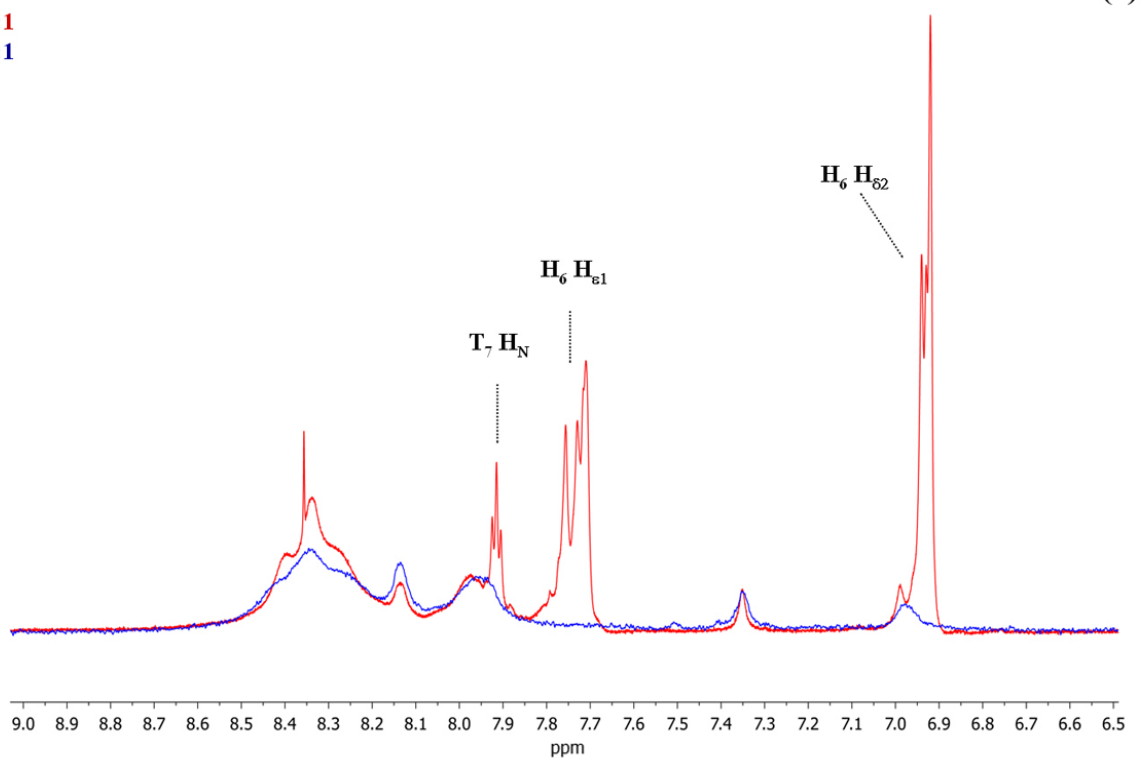


**Fig. 3s** Aromatic (a) and aliphatic region (b) of  $^1\text{H}$  NMR spectra of the multi-histidine peptide, 2.5 mM, pH 7, T=298K in the absence (red) and in the presence of 1 equivalent of Co(II) (blue).

Co(II):30aa-peptide Ac-(T<sub>1</sub>R<sub>2</sub>S<sub>3</sub>R<sub>4</sub>S<sub>5</sub>H<sub>6</sub>T<sub>7</sub>S<sub>8</sub>E<sub>9</sub>G<sub>10</sub>)<sub>3</sub>-Am

0:1

1:1



(b)

