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ERRATUM

Erratum to: Assignment of the ^{1}H NMR resonances of protein residues in close proximity to the heme of the nitrophorins: similarities and differences among the four proteins from the saliva of the adult blood-sucking insect *Rhodnius prolixus*

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Correction to the caption of Fig. 3, Table 1, and the text. Further research [Abriata LA, Zaballa M-E, Berry RE, Yang F, Zhang H, Walker FA, Vila AJ, submitted to *Inorg Chem*] has shown that the small peak seen at 2.6 ppm of the F1 dimension of the WEFT-NOESY spectrum of NP2(D1A) (top right in Fig. 3) decreases in intensity slowly as a function of the amount of time the protein sample has been in D_2O. The spectrum shown in Fig. 3 top right was recorded approximately 1 week after the protein had been dissolved in D_2O containing phosphate buffer at pH* 7.0. The intensity of the peak at 2.6 ppm is about 10 % that of the peak at −2 ppm. However, a similar sample left in D_2O for 16 months showed this peak at 2.6 ppm to have only ∼1 % of the intensity of the peak at −2 ppm. Thus this cross peak is that of an exchangeable proton, and cannot be that of the α-CH of His57. By analogy, those of wt NP2 and wt NP3 also shown in the top portion of that figure, and also the 1D NOE shown in the bottom portion of that figure, at similar chemical shifts of 2–3 ppm in each case, are likely exchangeable protons and thus cannot be assigned to the α-CH proton of His57 in these high-spin ferriheme proteins. In the work quoted above by Abriata et al., the α-CH proton of His57 of native N terminus NP2 containing ^{13}C, ^{15}N labeled histidine was shown by ^{1}H{^{13}C} HMQC to be at −1.4 ppm. Since native N terminus NP2 and NP2(D1A) have all other proton chemical shifts the same within ∼0.2 ppm [Berry RE, Muthu D, Shokhireva TK, Garrett SA, Zhang H, Walker FA (2012) Chem Biodiv 9:1739], we should expect to see a cross peak at −1.4 ± 0.2 ppm for the α-CH of His57 in Fig. 3; however, because of the proximity of the cross peak for the β-CH at about −2 ppm, which is expected to be more intense, that α-CH cross peak is not observed by WEFT-NOESY methods. In the paper by Abriata et al. referenced above, Supporting Information Figure S4 presents the raw data which confirm that the WEFT-NOESY cross peak in the spectrum of NP2(D1A) at 2–3 ppm is that of an exchangeable proton. The same work of Abriata et al., quoted above, shows that the cross peak at 2.90 ppm in the ^{1}H–^{13}C plane of the HNCA spectrum of high-spin native N terminus NP2 is that of the backbone amide proton of His57, which is only 2.51 Å from the closest β-CH proton, well within the distance expected for observing NOE cross peaks; in contrast, the α-CH proton is 2.86 Å from that same β-CH proton (PDB file 2EU7, of NP2(D1A)-NH_3).

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