Corrigenda

FEBS 21894

Corrigendum to: 'Role of the third intracellular loop of the Angiotensin II receptor subtype AT2 in ligand-receptor interaction' (FEBS 21557)

[*FEBS Lett. 445 (1999) 23–26*][1]

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When this article was published, one of the authors' names was misspelled. It is correctly spelled Gerald Obermair.

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[1] PII of the original article: S0014-5793(99)00085-X.

FEBS 22547

Corrigendum to: Conformational study of a collagen peptide by ^{1}H NMR spectroscopy: observation of the ^{14}N-^{1}H spin-spin coupling of the Arg guanidinium moiety in the triple-helix structure (FEBS 20886)

[*FEBS Letters 436 (1998) 243–246*][1]

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When this article was originally published, CB2, a CNBr peptide of 36 residues from type I collagen α1(I) chain, was characterized by NMR spectroscopy as a function of temperature. The observation of ^{14}N-^{1}H coupled resonances of a supposed Arg moiety was used to investigate the thermal unfolding process at acidic pH of CB2 from helical trimer to random monomer conformations. The thermal unfolding process was found to be reversible and the melting point was 17.2°C.

A deeper investigation was later conducted on the same peptide by analyzing the thermal behavior of the C-terminal homoserine by NMR and of the molar ellipticity at 221 nm by CD: the thermal unfolding curves gave a midpoint temperature of 13.4 and 14.6°C, respectively, values rather different from that obtained from the supposed Arg residue.

We verified that ammonia ions present in solution, and not the Arg guanidinium moiety, were responsible for the ^{14}N-^{1}H coupled signals. In fact, a ^{14}N NMR spectrum of CB2 acquired at low temperature and acidic pH showed the spin pattern typical of the NH_4^+ ion (quintuplet, $J_{NH} = 52$ Hz), overlapping the spin patterns due to the singly deuterated form NDH_3^+ (quartet of triplets, $J_{NH} = 52$ Hz and $J_{ND} = 8$ Hz), and to the doubly deuterated form $ND_2H_2^+$ (triplet of quintuplets), both forms arising from the equilibrium distribution of deuterium from the small amount of deuterated water added to lock the magnetic field.

On the other hand, ammonium chloride dissolved alone in acidic water did not show any area variation of its signals in the temperature range 0–25°C and exhibited a temperature coefficient of −8.6 ppb/°C, as expected for solvent exposed protons, against a value of −3.6 ppb/°C observed in our previous paper. It is tempting to think that the ammonia ions, present as contaminants in the CB2 preparation, are sensitive to the folding/unfolding process of the peptide, interacting directly or indirectly in some way with the triple helical species.

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