

Spatial structure of tetrapeptide N-AC-Ser-Phe-Val-Gly-OMe in "protein-micelle of sodium dodecyl sulfate" complex and in solid state by NMR spectroscopy

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Abstract

In the present paper the applicability of a structure determination for a four amino acid residues containing oligopeptide N-Ac-Ser-Phe-Val-Gly-OMe was investigated. The spatial structure of the "tetrapeptide (N-Ac-Ser-Phe-Val-Gly-OMe) - sodium dodecyl sulfate micelle" complex in aqueous solution was studied by 2D nuclear magnetic resonance (NMR) spectroscopy. The complexation was confirmed NOEs signs and values in the presence of sodium dodecyl sulfate. The spatial structure of the tetrapeptide in the complex was determined by 2D NOESY NMR spectroscopy. In present paper by the comparison ^{13}C NMR chemical shifts was shown that tetra peptide's spatial structure in solid state and tetrapeptide structure in "peptide-micelle" complex are identical.
