

Synthesis of Prostatic Acid Phosphatase PAP(248-261), PAP(262-270), PAP(248-286) peptide fragments and their characterization by mass-spectrometry

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Abstract

In this paper, we describe the synthesis technique of Prostatic Acid Phosphatase (PAP) peptide fragments: PAP(248-261), PAP(262-270), PAP(248-286). Experimentally obtained molecular mass spectra of synthesized peptide fragments by means of mass spectrometry are in good agreement with the theoretical molecular mass spectra determined from the knowledge of the isotopic distribution of those fragments. It is shown that there is no need in additional purification by chromatography for such short fragments as PAP(248-261) and PAP(262-270) after Ether Extraction Procedure. On the contrary, after the synthesis of full length peptide PAP(248-286) post-synthesis mixture has to be purified by chromatography. For hydrophobic segment PAP(262-270) we found that one part molecules of the segment is bound with Na⁺ ions, one more part is bound with Cl⁻ ions.