

Derivatization of peptides as quaternary ammonium salts for sensitive detection by ESI-MS.

Autorzy

Marzena Cydzik
Magdalena Rudowska
Piotr Stefanowicz
Zbigniew Szewczuk

Rok wydania

2011

Czasopismo

Journal of Peptide Science

Numer woluminu

17

Strony

445-453

DOI

10.1002/psc.1342

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

A series of model peptides in the form of quaternary ammonium salts at the *N*-terminus was efficiently prepared by the solid-phase synthesis. Tandem mass spectrometric analysis of the peptide quaternary ammonium derivatives was shown to provide sequence confirmation and enhanced detection. We designed the 2-(1,4-diazabicyclo[2.2.2] octylammonium)acetyl quaternary ammonium group which does not suffer from neutral losses during MS/MS experiments. The presented quaternization of 1,4-diazabicyclo[2.2.2]octane (DABCO) by iodoacetylated peptides is relatively easy and compatible with standard solid-phase peptide synthesis. This methodology offers a novel sensitive approach to analyze peptides and other compounds.

Słowa kluczowe

quaternary ammonium salts, Derivatization of peptides, peptide fragmentation, sequencing

Adres publiczny

<https://doi.org/10.1002/psc.1342>

Strona internetowa wydawcy

onlinelibrary.wiley.com