Fmoc solid-phase synthesis of peptide thioesters by masking as trithioortho esters

Total chemical synthesis of proteins by chemoselective ligation relies on C-terminal peptide thioesters as building blocks. Their preparation by standard Fmoc solid-phase peptide synthesis is made difficult by the lability of thioesters to aminolysis by the secondary amines used for removal of the Fmoc group. Here we present a novel backbone amide linker (BAL) strategy for their synthesis in which the thioester functionality is masked as a trithioortho ester throughout the synthesis.
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 3.014 SNIP 1.304
Web of Science (2010): Impact factor 5.25
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 3.061 SNIP 1.37
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 3.319 SNIP 1.299
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 3.207 SNIP 1.284
Scopus rating (2006): SJR 2.975 SNIP 1.342
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.598 SNIP 1.318
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.53 SNIP 1.251
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 2.518 SNIP 1.313
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 4.43 SNIP 1.296
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 2.267 SNIP 1.392
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 1.893 SNIP 1.161
Web of Science (2000): Indexed yes
Original language: English
Source: orbit
Source-ID: 22872
Research output: Research - peer-review > Journal article – Annual report year: 2003