

Interaction of serum amyloid A with human cystatin C—identification of binding sites.

Autorzy

Marta Spodzieja
Aneta Szymańska
Aleksandra Kołodziejczyk
Martyna Prądzińska
Martyna Maszota
Piotr Stefanowicz
Zbigniew Szewczuk
Anders Grubb
Paulina Czaplewska

Rok wydania

2012

Czasopismo

Journal of Molecular
Recognition

Numer woluminu

25

Strony

513-524

DOI

10.1002/jmr.2220

Kolekcja

Naukowa

Język

Angielski

Streszczenie

Serum amyloid A (SAA) is a multifunctional acute-phase protein whose natural role seems to be participation in many physiologic and pathological processes. Prolonged increased SAA level in a number of chronic inflammatory and neoplastic diseases gives rise to reactive systemic amyloid A amyloidosis, where the N-terminal 76-amino acid residue-long segment of SAA is deposited as amyloid fibrils. Recently, a specific interaction between SAA and the ubiquitous inhibitor of cysteine proteases--human cystatin C (hCC)--has been described. Here, we report further evidence corroborating this interaction, and the identification of the SAA and hCC binding sites in the SAA-hCC complex, using a combination of selective proteolytic excision and high-resolution mass spectrometry. The shortest binding site in the SAA sequence was determined as SAA(86-104), whereas the binding site in hCC sequence was identified as hCC(96-102). Binding specificities of both interacting sequences were ascertained by affinity experiments (ELISA) and by registration of mass spectrum of SAA-hCC complex.

Adres publiczny

<http://dx.doi.org/10.1002/jmr.2220>

Strona internetowa wydawcy

onlinelibrary.wiley.com

Artykuł

Plik został wygenerowany dnia 2026-10-05 20:50:26

Adres w repozytorium <https://old.chem.uni.wroc.pl/pl/repozytorium/RewW4un>.