

Title (en)

AFFINITY PURIFICATION METHODS INVOLVING AMINO ACID MIMETICS AS ELUTION REAGENTS.

Title (de)

AMINOSÄURE-MIMETIKA ALS ELUTIONSREAGENTIEN IN AFFINITÄTSREINIGUNGSMETHODEN.

Title (fr)

PROCEDES DE PURIFICATION PAR AFFINITE UTILISANT DES MIMETISMES D'ACIDES AMINES COMME REACTIFS D'ELUTION.

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9407912A1] Disclosed is a method of isolating a protein from a sample, involving (i) providing a first molecule which is capable of forming an affinity complex with the protein; (ii) contacting the sample with the first molecule under conditions which allow affinity complex formation; (iii) isolating the complex; (iv) treating the complex with a second molecule, the second molecule mimicking an amino acid residue of either the protein or the first molecule which is critical to the complex formation, so that the second molecule disrupts the complex; causing the release of the protein from the complex; and (v) isolating the protein. According to one embodiment, the amino acid mimetic imidazole is used as a very gentle elution reagent to disrupt a protein A-antibody fusion protein complex, a technique which has general application for the isolation of antibodies or recombinant antibody fusion proteins.

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IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] Y NAKAGAWA ET AL.: "High-performance immobilized metal ion affinity chromatography of peptides; analytical separation of biologically active synthetic peptides", ANALYTICAL BIOCHEMISTRY, vol. 168, 1988, NEW YORK US, pages 75 - 81, XP002040250
- [X] M KASTNER & D NEUBERT: "Highperformance metal chelate affinity chromatography of cytochromes P-450 using Chelating Superose", JOURNAL OF CHROMATOGRAPHY, vol. 587, 1991, AMSTERDAM NL, pages 43 - 54, XP002040251
- [X] M BELEW & J PORATH: "Immobilized metal ion affinity chromatography. Effect of solute structure, ligand density and salt concentration on the retention of peptides", JOURNAL OF CHROMATOGRAPHY, vol. 516, 1990, AMSTERDAM NL, pages 333 - 354, XP002040252
- [X] CHEMICAL ABSTRACTS, vol. 112, no. 15, 9 April 1990, Columbus, Ohio, US; abstract no. 135398, XP002040253 & T T YIP ET AL.: "Evaluation of the interaction of peptides with copper (II), nickel (II), and zinc (II), by high-performance immobilized metal ion affinity", ANALYTICAL BIOCHEMISTRY, vol. 183, no. 1, 1989, NEW YORK US, pages 159 - 171
- [X] CHEMICAL ABSTRACTS, vol. 108, no. 11, 14 March 1988, Columbus, Ohio, US; abstract no. 91168, XP002040254 & E SULKOWSKI: "Immobilized metal ion affinity chromatography of proteins", UCLA SYMP. MOL. CELL. BIOL., NEW SER., vol. 68, 1987, pages 149 - 162
- [X] CHEMICAL ABSTRACTS, vol. 107, no. 17, 26 October 1987, Columbus, Ohio, US; abstract no. 150534, XP002040255 & M BELEW ET AL.: "High-performance analytical applications of immobilized metal ion affinity chromatography", ANALYTICAL BIOCHEMISTRY, vol. 164, no. 2, 1987, NEW YORK US, pages 457 - 465, XP024816831, DOI: doi:10.1016/0003-2697(87)90519-7
- See references of WO 9407912A1

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