

Proteomics



Recent patents relating to protein identification, characterization and analysis.

Patent number	Description	Assignee	Inventor	Date
US2023089727A1	Methods of characterizing at least one protein of interest in a biological sample using automated iterative tandem mass spectrometry (AIMS) to identify, quantify and characterize at least one protein of interest and/or biomarker from a biological sample such as plasma.	Regeneron Pharmaceuticals (Tarrytown, NY, USA)	Huang X, Huang Y, Zheng X, Li N	3/23/2023
WO2023034789A1	Multiplexed proteomics analysis using oligonucleotide-conjugated antibodies. The identity of the protein quantified can be determined by, for example, the fluorescence intensity of first detectable moieties (for example, dye(s)) on the solid support with the sandwich of solid support oligonucleotide-captured oligonucleotide-detection oligonucleotide.	Becton Dickinson & Co. (Franklin Lakes, NJ, USA)	Wright AT, Martin J, Song H-W, Vadrevu S	3/9/2023
CN115684600A	A method for relative quantification of a proteome via eight mass loss tags synthesized to contain an isotopically labeled lysine and a novel method for analyzing and quantifying a proteome by using a non-data-dependent acquisition mass spectrum.	Fudan University (Shanghai)	Lu H, Zhang S, Di Y, Zhang Y	2/3/2023
WO2023002181A1	A high-throughput targeted proteomics-based method for identifying and quantifying one or more binding molecules in a biological fluid from an individual, involving the use of a plurality of bait molecules to capture the binding molecules. The methods can be used to identify and quantify antibodies produced by an individual and proteins expressed by an individual following exposure to antigens, such as viral antigens, particularly coronavirus antigens and more particularly SARS-CoV-2.	UCL Business Ltd. (London)	Mills K, Heywood W, Doikov I, Moon J	1/26/2023
CN115636879A	A nanoantibody production method based on next-generation sequencing and proteomics, and application thereof. A recombinant nanoantibody is produced by combining affinity purification mass spectrometry and next-generation sequencing, a nanoantibody sequence with high confidence is screened by means of dual comparison of BLAST+ and V-QUEST software, and the coverage of mass spectrometric detection of the nanoantibody's complementarity-determining region is improved by means of multi-enzyme digestion.	Nanjing Jisi Huiyuan Biological Technology Co. (Nanjing, China)	Gao H, Fang L, Wu X	1/24/2023
CN115616175A	A biomarker for evaluating the quality or pharmacodynamics of a pharmaceutical preparation and a detection method thereof. The proteomics technology is adopted to identify and screen differentially expressed proteins related to cardiovascular and cerebrovascular diseases.	Shaanxi Buchang Pharmaceutical Co. (Xianyang, China)	Liu F, Huang Z, Zhang R, Chen Y, Zhang J, Liu X, Hu M	1/17/2023
WO2022245209A2	A proteinaceous nanopore comprising a mutant pore-forming toxin or a pore-forming fragment thereof, wherein the lumen-facing recognition region of the pore-forming protein or fragment thereof comprises one or more substitution(s) to a natural or non-natural aromatic amino acid residue of lumen-facing amino acid(s) in the recognition region corresponding to amino acids 10–20 of fragaceatoxin C.	University of Groningen (Groningen, the Netherlands)	Lucas FLR, Versloot RCA, Maglia G	11/24/2023

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