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(57) Abstract :
The present invention relates to novel method for the isolation of Alzheimer's Disease (AD) biomarkers from biological samples. The method integrates a multi-step extraction process, highly specific binding reagents (including monoclonal antibodies and aptamers), advanced separation techniques, automation, and quantitative analysis. It is specifically designed to enhance sensitivity, specificity, and reproducibility in the isolation of AD biomarkers, exemplified by amyloid-beta peptides and tau proteins. The method facilitates precise quantification and monitoring of these biomarkers, offering potential applications in early AD diagnosis, disease progression tracking, and therapeutic target identification. Moreover, it accommodates various sample types, including cerebrospinal fluid, blood, and tissue samples, underscoring its versatility and significance in advancing AD research and patient care.

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