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Comparison of Extracellular Vesicle Isolation Methods for miRNA Sequencing

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Abstract: MicroRNAs (miRNAs) encapsulated in extracellular vesicles (EVs) are potential diagnostic and prognostic biomarkers. However, discrepancies in miRNA patterns and their validation are still frequent due to differences in sample origin, EV isolation, and miRNA sequencing methods. The aim of the present study is to find a reliable EV isolation method for miRNA sequencing, adequate for clinical application. To this aim, two comparative studies were performed in parallel with the same human plasma sample: (i) isolation and characterization of EVs obtained using three procedures: