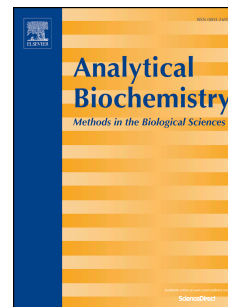


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Microbial Flow Cytometry: An Ideal Tool for Prospective Antimicrobial Drug Development

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Abstract

Flow cytometry has tremendous applications in qualitative and quantitative analysis of characteristics of single microbial cells. Its ability to efficiently discriminate and quantify multiple parameters of microbial cells has made it a powerful tool to catalog the mechanism of action of antimicrobial peptides (AMPs) on target cells. Here, we provide a comprehensive overview and strategic design on how multi-parametric analysis of flow cytometry is unsurpassed in studying the antimicrobial process of AMPs in an accurate and rapid way. This strategy provides a conceptual framework for understanding distinct classes of AMPs and get insights into antimicrobial mechanisms of novel AMPs.

Key Words: Flow cytometry; antimicrobial peptides; membrane-acting; cell-translocating; mode of action; cytotoxicity

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