

Flow Cytometry Perfected: PluriStrainer Contribution to Cell Separation Precision

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/EINPresswire.com/ -- Elevate your flow cytometry workflow to unprecedented precision with PluriStrainer, an innovative [cell strainer](#) that ensures a homogeneous single-cell suspension, minimizing clumps and debris for reliable and accurate analyses.

Flow cytometry, a powerful technique in cell biology, enables the analysis of individual cells based on their physical and chemical characteristics. The

precision of flow cytometry results is heavily reliant on the quality of the sample preparation, emphasizing the critical role of a high quality cell strainer.

In flow cytometry, a homogeneous single-cell suspension is vital for accurate and reliable analysis. Any clumps, debris, or undesired cell aggregates can compromise the integrity of the sample, leading to skewed results. This is where a high-performance [best lab cell strainer](#), such as the pluriStrainer, plays a pivotal role. By efficiently separating cells and ensuring a uniform suspension, the cell strainer becomes an indispensable tool in optimizing the flow cytometry workflow. The success of downstream applications, including immunophenotyping, cell sorting, and functional assays, hinges on the initial steps of sample preparation. Therefore, the importance of a reliable and efficient lab cell strainer cannot be overstated in the context of achieving precise and reproducible flow cytometry results.

Comparison with Traditional Methods: A Leap Forward in Efficiency

In the ever-evolving landscape of laboratory research, where precision and efficiency are paramount, the pluriStrainer emerges as an innovative cell strainer in the realm of [cell separation technology](#). Focused on enhancing the efficacy of flow cytometry, this sieving device redefines the standards for cell filtration and purification, ensuring researchers achieve unparalleled precision in their experiments.



PluriStrainer's Contribution to Cell Separation Precision

Time Efficiency:

Traditional methods may involve multiple steps and extended processing times, introducing the risk of cell degradation and altering experimental outcomes.

PluriStrainer streamlines the process, providing a faster and easier alternative.

Researchers can significantly reduce the time spent on sample preparation, allowing for quicker progression to downstream applications.

Resource Savings:

Gauze filtration and similar methods may require additional materials and resources, contributing to the overall cost of experiments.

PluriStrainer's stackable design and compatibility with major 50 mL centrifuge tubes eliminate the need for excessive consumables.

This reduction not only lowers costs but also minimizes the environmental impact associated with disposable materials.

Consistency and Reproducibility:

The manual nature of traditional methods introduces variability in sample preparation, impacting the reproducibility of experiments.

PluriStrainer, with its precision and standardized process, ensures consistency across experiments.

This enhances the reliability of results and simplifies the researcher's workflow by minimizing variations in sample preparation.

By using the pluriStrainer, researchers can overcome the drawbacks of traditional methods, ushering in a new era of efficiency, consistency, and resource optimization in flow cytometry sample preparation. This leap forward positions the pluriStrainer as an indispensable tool for those seeking to enhance the accuracy and reliability of their experiments in the ever-evolving landscape of scientific discovery.

Innovative Features for Optimal Results

The pluriStrainer introduces a range of features that elevate its functionality:

Filtering with Precision: Attach the pluriStrainer to a sterile 50 mL centrifuge tube, add the sample material, and let the device efficiently filter the sample, ensuring optimal separation.

Effortless Reversal: Obtain the larger fraction effortlessly by removing the pluriStrainer, turning it

upside down onto another 50 mL tube, and flushing back the sample from the pluriStrainer.

Increased Sample Load: The addition of a funnel allows for an increased sample load of up to 24 mL, facilitating higher throughput without compromising precision.

Smart Stacking: Stack pluriStrainer units with different mesh sizes, enabling the simultaneous straining of various cell sizes, providing flexibility and adaptability to diverse experimental needs.

Flow Control at Your Fingertips: The pluriStrainer allows researchers to control the rate of flow by opening or closing the Luer-Lock, a valuable feature for physical dissociation of primary tissues such as the brain and spleen.

Low-Pressure Support: The integration of a syringe into the Connector Ring empowers researchers to apply low pressure, facilitating the straining of rough sample materials while pulling the piston.

Versatile Applications of PluriStrainer: Streamlining Cell Preparation Across Diverse Research Settings

PluriStrainer, with its versatile applications, proves to be an indispensable asset across various biological research scenarios, offering efficient solutions and transforming traditional methods.

One key application lies in obtaining a real single-cell suspension after the digestion of mammary tissue and organoids. PluriStrainer ensures the elimination of clumps and debris, delivering a homogeneous cell suspension that is crucial for downstream applications.

The integration of pluriBead technology further extends PluriStrainer's utility by enabling the enrichment of specific cells. This innovative combination facilitates precise cell isolation, enhancing the purity of cell populations for a range of experiments.

Moreover, PluriStrainer demonstrates its adaptability in the preparation of single-cell suspensions from diverse sources such as bone marrow, pancreas, thymus, lymph nodes, and other organs. This versatility makes it an ideal tool for researchers working with various tissues, simplifying the cell dissociation process.

In the realm of flow cytometry (FACS), PluriStrainer emerges as a key player, offering researchers a faster and easier alternative to traditional gauze filtration methods. This streamlined process not only reduces sample preparation time but also ensures a uniform suspension, contributing to more accurate and reliable analyses.

PluriStrainer's capabilities extend beyond conventional methods, proving effective in sieving complex and viscous liquids when combined with the connector ring and syringe for vacuum. This feature opens up new possibilities for researchers dealing with challenging sample types, providing a seamless solution for liquid filtration.

PluriStrainer's diverse applications make it an invaluable tool for researchers across disciplines, offering solutions that enhance the efficiency, precision, and adaptability of various experimental procedures, ultimately contributing to advancements in the field of biological research.

For more information on PluriStrainer and to place an order, please visit -
<https://uberstrainer.com/>

About Pluriselect-USA

Pluriselect-USA is one of the leading providers of innovative laboratory solutions that empower researchers to achieve advancements in cell analysis and sample preparation. With a commitment to innovation, quality, and excellence, Pluriselect's products are designed to elevate accuracy and consistency in laboratory processes, enabling scientists to push the boundaries of scientific exploration.

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