For Research Use Only

MonoZero™ Monocytes Blocking Reagent

Catalog Number: PF00020

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Product Information

In the surface staining method of flow cytometry experiment, both monocytes and macrophages undergo nonspecific binding to antibodies or fluorescent moieties. In particular, there is non-specific binding of anthocyanin dyes (e.g. Cy series) and their associated tandem dyes (e.g. PE-Cy5.5, PE-Cy5, PerCP-Cy5.5, PE-Cy7, APC-Cy7) to leukocyte subsets (especially monocytes and macrophages). MonoZero™ Monocytes blocking buffer can block this non-specific binding induced by the anthocyanin dyes, increasing the accuracy and reproducibility of the results and reducing the difficulty of analyzing the results.
MonoZero™ Monocytes blocking reagent is a non-antibody blocking buffer that reduces the non-specific binding of anthocyanin fluorophores to monocytes and macrophages without affecting the specific staining expected for those cells. It is more effective with Fc receptor blockers or by replacing traditional flow antibodies with the new FcZero-rAb™ backbone.

Package

25 Test / 100 Test / 500 Test

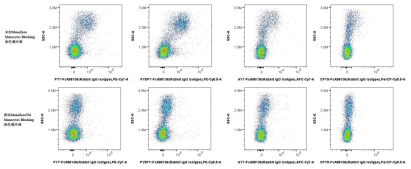
Storage

This product should be stored at 2-8°C, avoiding freezing or repeated freezing and thawing. Please ensure that the reagents are completely thawed and mixed well before use. To ensure optimal use, it is recommended to use this product within the expiration date. Please plan the amount of use according to the experiment's needs and avoid prolonged exposure to room temperature. **The product should be kept sealed after opening to prevent contamination.**

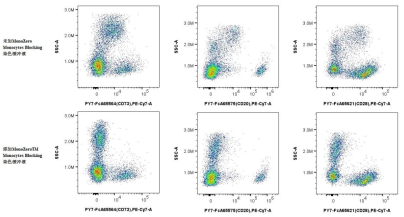
Protocol

This product is suitable for flow cytometry experiments. It is recommended to use 1 uL/100 uL cell suspension. The specific dosage can be adjusted according to the experimental conditions and cell types. Firstly, mix the cell suspension with MonoZero™ Monocytes blocking staining reagent proportionally. Then immediately add the antibody for incubation.
The specific experimental protocol is as follows:
1. Make cell suspension at a concentration of about 1×10^6 cells/mL.
2. Take an appropriate amount of cell suspension, add MonoZero™ Monocytes blocking staining reagent at a ratio of 1:100, mix gently and add an appropriate amount of flow cytometry antibody, and continue incubation for 30 minutes. At the end of incubation, wash twice with flow cytometry staining buffer, centrifuge and discard the supernatant, resuspend the cells and perform flow cytometry experiments.
Note: It is recommended to use FcZero-rAb™ Novel Backbone Flow Antibody with this product, or add Fc blocking reagent and incubate at room temperature for 10 min before adding this product to ensure the accuracy and consistency of the experimental results.

Validation Data



MonoZero™ Monocytes Blocking Staining Reagent reduces non-specific binding of antibodies in hPBMCs. Incubation of hPBMCs with different fluorescent dye-labeled rabbit IgG isotypes (PE-Cy7-FcA98136, PE-Cy5.5-FcA98136, APC-Cy7-FcA98136, and PerCP-Cy5.5-FcA98136) showed a significant reduction in nonspecific binding with... the addition of MonoZero™.



MonoZero™ Monocytes Blocking Staining Reagent in PE-Cy7 Coupled Antibody exhibits excellent blocking effect, significantly reduces background noise and enhances signal clarity. Incubating hPBMCs with PY7-FcA65564 (CD73), PY7-FcA65575 (CD20), PY7-FcA65621 (CD28), MonoZero™ significantly reduced non-specific binding and did... not minimize specific binding, ensuring the accuracy and reliability of experimental data.