

Veri-Cells™ PBMC

Catalog# / Size	425003 / 10 tests 425001 / 25 tests 425004 / 50 tests 425002 / 100 tests
Regulatory Status	RUO
Other Names	Control cells
Description	<p>The reconstituted lyophilized human PBMC can be used for immunofluorescent staining and multi-color flow cytometry assays. The cells can be used as controls for stability studies to avoid donor variability. These cells have been verified to work with commonly tested cell markers such as CD3, CD4, CD8, CD19, CD20, CD56/16, CD14, CD25, CD69, Granzyme B, Perforin, FOXP3, and Helios. View all 150 markers verified by LEGENDScreen™.</p> <p>This product contains human cells, a potentially biohazardous material. Blood used in preparation of these samples was tested and found to be negative, using FDA approved methods, for antibody and nucleic acid testing against Human Immunodeficiency virus (HIV), Hepatitis B and C virus and HTLV (Human T-Lymphotropic virus I and II), surface antigen for Hepatitis B (HBsAg) virus and syphilis and West Nile Virus. Biological tests are not 100% accurate. Use standard precautions when handling and treat as if the product is capable of transmitting disease. When handling or disposing, follow precautions described in CDC and FDA recommendations and OSHA Bloodborne Pathogen guidelines.</p>

Kit Contents

Kit Contents	<p>Cat. No. 425001</p> <ul style="list-style-type: none"> 1 vial of Veri-Cells™ PBMC ($\geq 5 \times 10^6$ cells) 1 vial of 1.5 ml Veri-Cells™ Buffer A Plus <p>Cat. No. 425002</p> <ul style="list-style-type: none"> 4 vials of Veri-Cells™ PBMC ($\geq 5 \times 10^6$ cells per vial) 4 vials of 1.5 ml Veri-Cells™ Buffer A Plus each <p>Cat. No. 425003</p> <ul style="list-style-type: none"> 2 vials of Veri-Cells™ PBMC ($\geq 1 \times 10^6$ cells per vial) 1 vial of 700 μl Veri-Cells™ Buffer A Plus each <p>Cat. No. 425004</p> <ul style="list-style-type: none"> 10 vials of Veri-Cells™ PBMC ($\geq 1 \times 10^6$ cells per vial) 5 vials of 700 μl Veri-Cells™ Buffer A Plus each <p>Veri-Cells™ Buffer A Plus is an improved version of the original Veri-Cells™ Buffer A to improve staining performance with tandem dyes.</p>
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Product Details

Formulation	<p>Cat. Nos. 425003 and 425004: $\geq 1 \times 10^6$ lyophilized human peripheral blood mononuclear cells (PBMC).</p> <p>Cat. Nos. 425001 and 425002: $\geq 5 \times 10^6$ lyophilized human peripheral blood mononuclear cells (PBMC).</p>
Preparation	The Veri-Cells™ PBMC Kit is prepared from lyophilized human PBMC and a vial of Veri-Cells™ Buffer A Plus.
Storage & Handling	<p>Store the kit at 2°C - 8°C upon receipt. Do not open sealed pouch until ready to use. Once reconstituted, the cells may be used for up to five days if properly stored at 2°C - 8°C in the buffer provided. Contact BioLegend Technical Support for information on the current lots.</p>
Application	<p>FC - Quality tested</p> <p>ICFC - Verified</p>
Recommended Usage	<p>Cat. Nos. 425001, 425002 50 μl per test (after reconstitution with 1.3 ml)</p> <p>Cat. Nos. 425003, 425004 50 μl per test (after reconstitution with 325 μl)</p> <p>Note: Veri-Cells™ Buffer A Plus may show precipitation over time, however this is normal and does not affect performance of the buffer.</p>

Application Notes

The Veri-Cells™ PBMC Kit can be used as positive controls for surface immunofluorescent staining and multi-color flow cytometry assays using the BioLegend surface staining protocol. It can also be used for the detection of intracellular molecules such as Granzyme B, Perforin, Foxp3 and Helios using BioLegend's Fixation Buffer and Intracellular Staining Permeabilization Wash Buffer (10X) or the True Nuclear™ Transcription Factor Buffer Set. For best results, Cell Staining Buffer is recommended for any washing steps. Product performance specifications are based on testing with BioLegend reagents and protocols. Deviations from the use of these reagents and procedures have not been assessed and may affect performance.z

Cell subset	Acceptance Criteria, % of lymphocyte gate
CD3 ⁺	55-95
CD4 ⁺ CD3 ⁺	30-65
CD8 ⁺ CD3 ⁺	10-55
CD19 ⁺ CD3 ⁻	3-40
CD56 ⁺ CD16 ⁺ CD3 ⁻	3-40

Note on indicated ranges: Percent positive values are obtained based on gates set on unstained cells. The antibodies used for testing were the following: CD56 PE (clone 5.1H11), CD16 PE (clone 3G8), CD19 APC (clone H1B19), CD3 FITC (clone UCHT1), CD4 PE/Cy7 (clone RPA-T4), and CD8 APC/Cy7 (clone RPA-T8). Variability in antibodies used, instruments, staining conditions and other factors may influence end-user values. The Certificate of Analysis specific values are provided as a reference. It is recommended that individual laboratories establish its own control values and ranges for each parameter based on laboratory specific conditions and protocols.

Please use our [CoA Look-Up Tool](#) to find the expected lot-specific frequencies of certain cell populations included within each lot of Veri-Cells™ PBMC. The antibodies used for testing were the following: CD56 PE (clone 5.1H11), CD16 PE (clone 3G8), CD19 APC (clone H1B19), CD3 FITC (clone UCHT1), CD4 PE/Cy7 (clone RPA-T4), CD8 APC/Cy7 (clone RPA-T8). Percent positive is based on gates set on unstained cells. The Certificate of Analysis specific values are provided only as a reference. Variability in antibodies used, instruments, staining conditions and other factors may influence end-user values. It is recommended that individual laboratories establish its own control values and ranges for each parameter based on laboratory specific conditions and protocols.

Additional Product Notes

View more applications data using this product to characterize their use as a control in [flow cytometry assays](#) and [longitudinal studies](#) in our [Scientific Poster Library](#).

Veri-Cells™ Buffer A Plus is an improved version of the original Veri-Cells™ Buffer A to improve staining performance with tandem dyes.

Product Citations

1. Sun Y, *et al.* 2016. Bioanalysis. 8(23):2399-2413. [PubMed](#)
2. Haredy, *et al.* 2019. Vaccine. 5225:5232. [PubMed](#)

Antigen Details

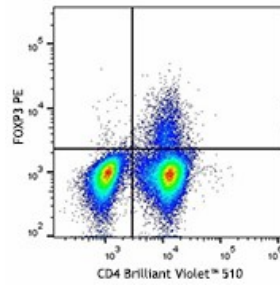
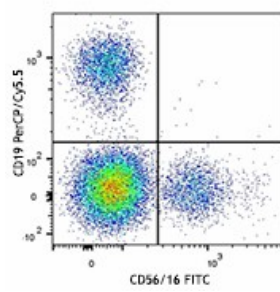
Biology Area	Immunology
Molecular Family	CD Molecules
Gene ID	NA

Related Protocols

[Protocol for using Veri-Cells™](#)

Product Data

Veri-Cells™ PBMC were stained with anti-human CD19 (clone H1B19) PerCP/Cy5.5, CD16 (clone 3G8) FITC, and CD56 (clone HCD56) FITC (top) or CD4 Brilliant Violet™ 510 and FOXP3 (clone 206D) PE (bottom).



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