PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Y45) (Site-specific conjugation) (0.03% Proclin)

Catalog # FM3-PY54A2

Source

PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 is produced via site-specific conjugation of PE to Monoclonal Anti-FMC63 Antibody, Mouse IgG1 under optimal conditions with a proprietary technology.
We carry another premium grade PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Y45) (FM3-PY54G0), produced with the same production process but under more rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. It is designed for cell isolation and cell culture applications in the early preclinical stage.

Application

Flow Cytometry (Evaluation of Anti-CD19 (FMC63 scFv) CAR Expression).
Please note that this product is NOT compatible to streptavidin detection system.

Clone

Y45

Species

Mouse

Isotype

Mouse IgG1 | Mouse Kappa

Specificity

Specifically recognizes the antigen-recognition domain of FMC63 derived CARs.

Immunogen

Recombinant FMC63 scFv derived from HEK293 cells.

Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

Isotype Control

The Isotype control is sold separately and you can search for Cat. No. ***DNP-PM1*** for product information.

Recommended Dilution

1:50

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.5% BSA, 0.03% Proclin, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 12 months after reconstitution;
- 2-8°C for 12 months after reconstitution.

Bioactivity-FACS

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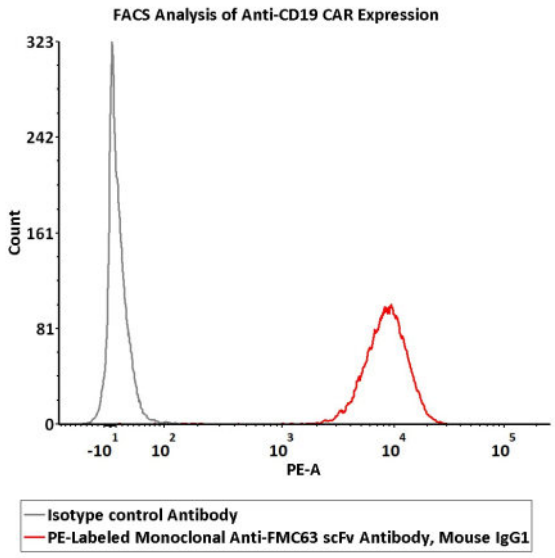
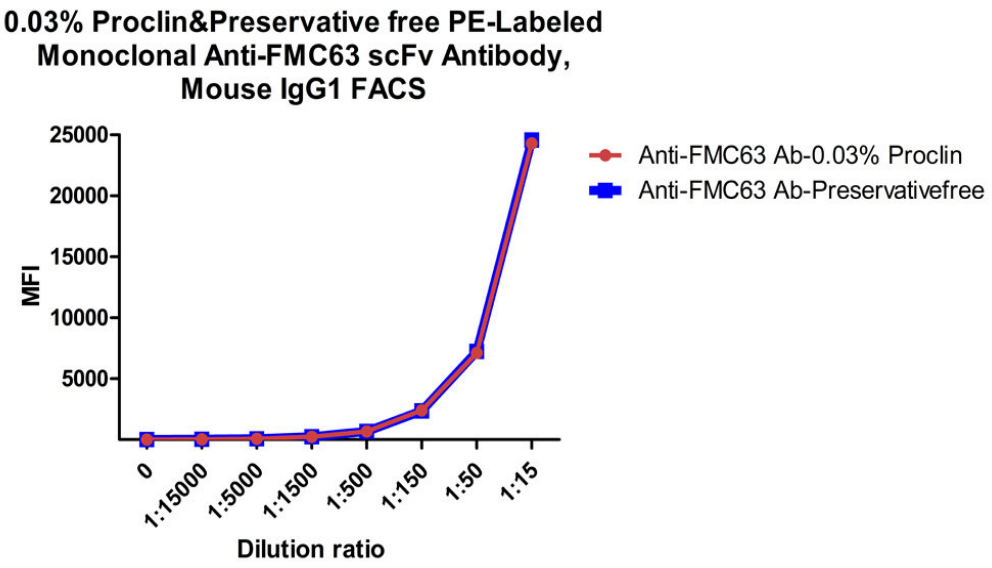
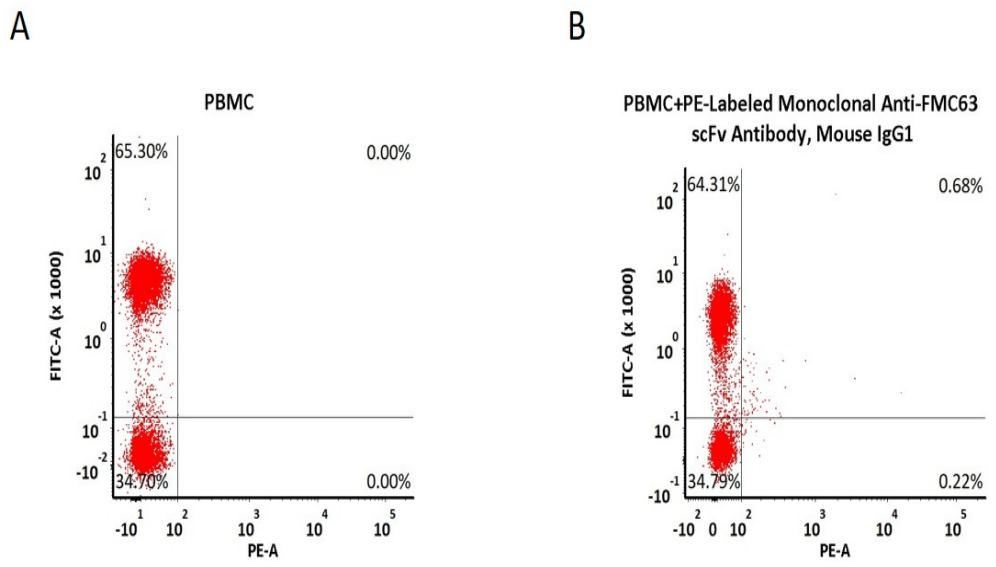


5e5 of anti-CD19 CAR-293 cells were stained with 100 µL of 1:50 dilution (2 µL stock solution in 100 µL FACS buffer) of PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Cat. No. FM3-PY54A2) and isotype control antibody respectively. PE signal was used to evaluate the binding activity (QC tested).



Binding activity of the PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 before and after adding 0.03% Proclin was evaluated in the above FACS analysis. The result shows that PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Cat. No. FM3-PY54A2) and PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Cat. No. FM3-HPY53) have the same binding activity against anti-CD19 CAR-293 cells.



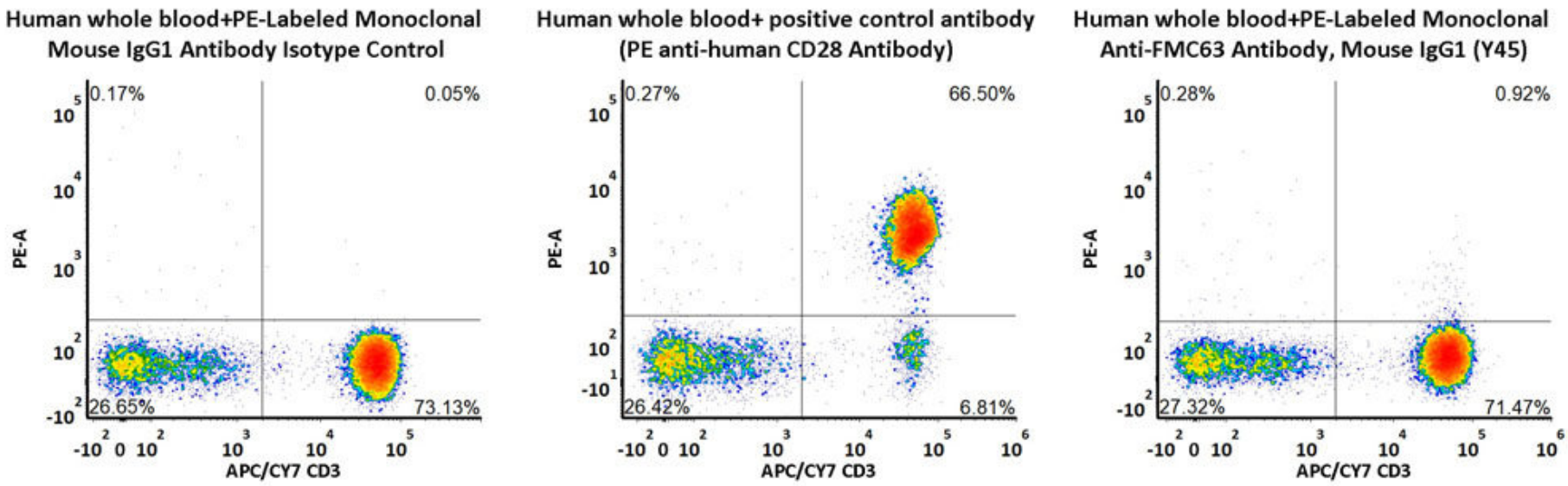
Non-specificity of PE-Labeled Monoclonal Anti-FMC63 scFv Antibody, Mouse IgG1 (Y45) (Cat. No. FM3-PY54A2) binding to CD3+ cells present in human PBMC. Human PBMCs were simultaneously stained with FITC-labeled anti-CD3 antibody and PE-Labeled Monoclonal Anti-FMC63 scFv Antibody, Mouse IgG1 (Y45) (2 µL of the antibody stock solution corresponds to labeling of 5e5 cells in a final volume of 100 µL), washed and then analyzed with FACS. Both FITC and PE positive signals was used to evaluate the non-specific binding activity to human CD3+ cells (QC tested).

Evaluation of CAR expression

FACS Analysis of Non-specific binding to Human whole blood

PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Y45) (Site-specific conjugation) (0.03% Proclin)

Catalog # FM3-PY54A2



Non-specificity of PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Y45) (Site-specific conjugation) (0.03% Proclin) (Cat. No. FM3-PY54A2) binding to CD3+ cells present in human whole blood. 100 µl of human whole blood were simultaneously stained with APC/Cyanine7 anti-human CD3 Antibody and PE-Labeled Monoclonal Anti-FMC63 Antibody, Mouse IgG1 (Y45) (2 µL of the antibody stock solution in a final volume of 100 µL), compared with isotype control antibody and positive control antibody. Both APC/Cyanine7 and PE positive signals was used to evaluate the non-specific binding activity to human CD3+ cells.

Background

FMC63 is an IgG2a mouse monoclonal antibody specific for CD19, which is a target for the immunotherapy of B lineage leukaemias and lymphomas. FMC63 scFv is the most commonly used ectodomain component of CD19-specific CARs. So far, most of reported CART19 trials contain the anti-CD19 scFv derived from FMC63, including the two FDA-approved CARs Kymriah and Yescarta.

Clinical and Translational Updates