APC-Labeled Human CD4 Protein, His TagStar Staining

Catalog # CD4-HA2H9

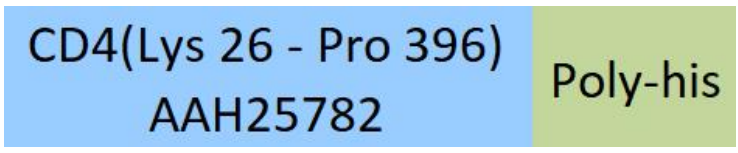
Synonym

CD4,CD4mut,LEU3

Source

APC-Labeled Human CD4 Protein, His Tag (CD4-HA2H9) is produced via conjugation of APC to Human CD4 Protein, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human CD4 Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Lys 26 - Pro 396 (Accession # AAH25782).
Predicted N-terminus: Lys 26

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 55.8 kDa.

Conjugate

APC

Excitation Wavelength: 640 nm

Emission Wavelength: 661 nm

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.2% BSA, 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.

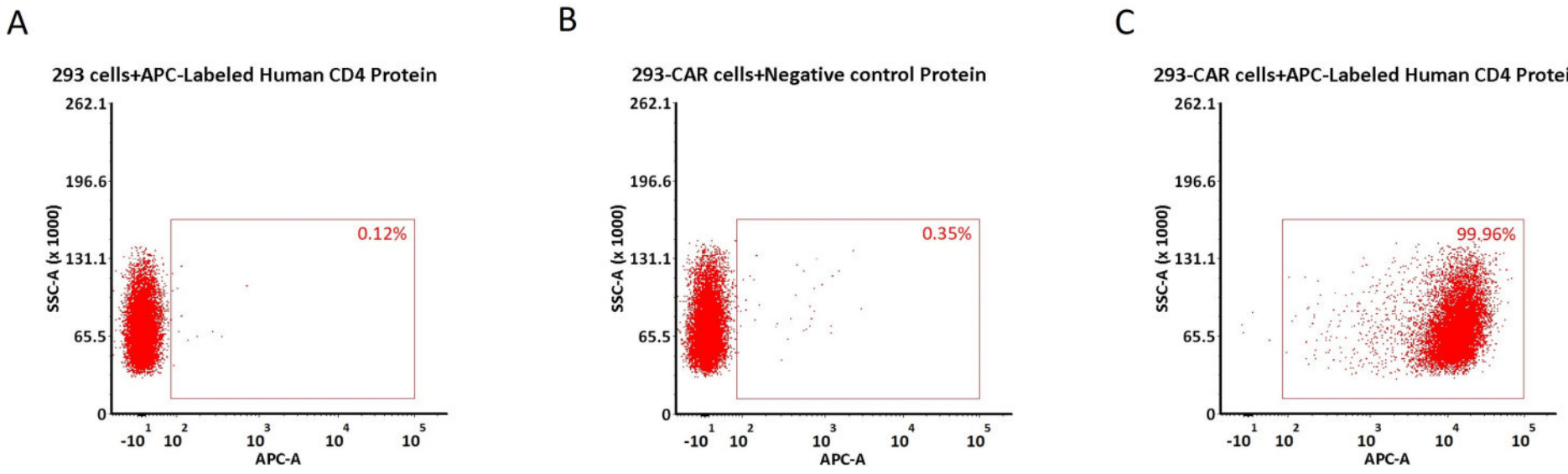
Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

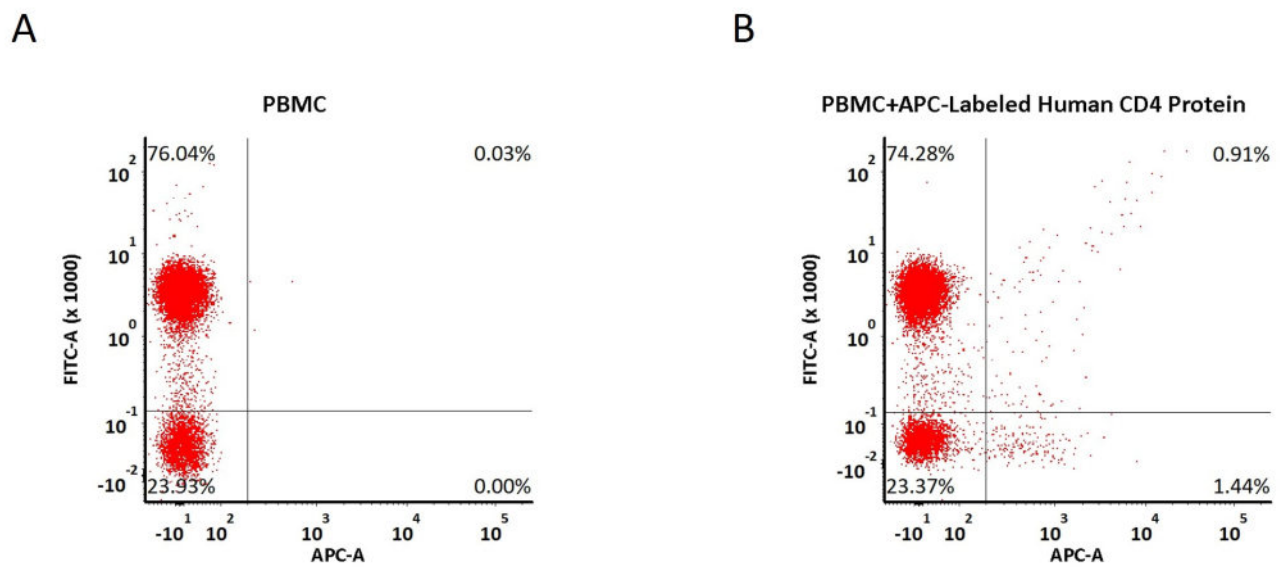
Evaluation of CAR expression

FACS Analysis of Anti-CD4 CAR Expression



5e5 of anti-CD4 (Ibalizumab) CAR-293 cells were stained with 100 μL of 1:50 dilution (2 μL stock solution in 100 μL FACS buffer) of APC-Labeled Human CD4 Protein, His Tag (Cat. No. CD4-HA2H9) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). APC signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with APC-Labeled Human CD4 Protein, His Tag (Cat. No. CD4-HA2H9) and anti-CD3 antibody, washed and then analyzed with FACS. FITC signal was used to evaluate the expression of CD3+ T cells in PBMCs, and APC signal was used to evaluate the non-specific binding activity to PBMCs (QC tested).

Background

T-cell surface glycoprotein CD4 is also known as T-cell surface antigen T4/Leu-3. CD4 contains three Ig-like C2-type (immunoglobulin-like) domains and one Ig-like V-type (immunoglobulin-like) domain. CD4 is accessory protein for MHC class-II antigen/T-cell receptor interaction. CD4 induces the aggregation of lipid rafts. CD4 is a primary receptor used by HIV-1 to gain entry into host T cells. HIV infection leads to a progressive reduction of the number of T cells possessing CD4 receptors. Therefore, medical professionals refer to the CD4 count to decide when to begin treatment for HIV-infected patients.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.