FITC-Labeled Human CD4 Protein, His Tag

Catalog # CD4-HF2H7

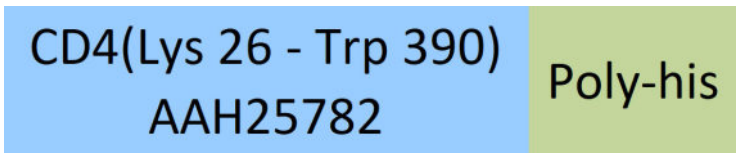
Synonym

CD4,CD4mut,LEU3

Source

FITC-Labeled Human CD4, His Tag (CD4-HF2H7) is expressed from human 293 cells (HEK293). It contains AA Lys 26 - Trp 390 (Accession # AAH25782). It is the FITC labeled form of Human CD4, His Tag (LE3-H5228).
Predicted N-terminus: Lys 26

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 41.5 kDa. The protein migrates as 45-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.

Protein Ratio

The FITC to protein molar ratio is ***3-5***.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 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

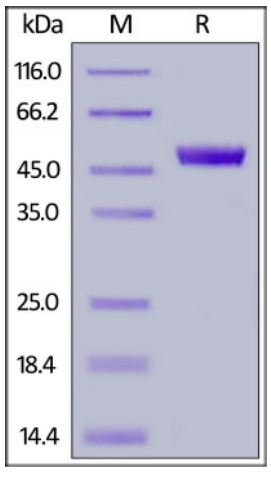
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

This product is stable after storage at:

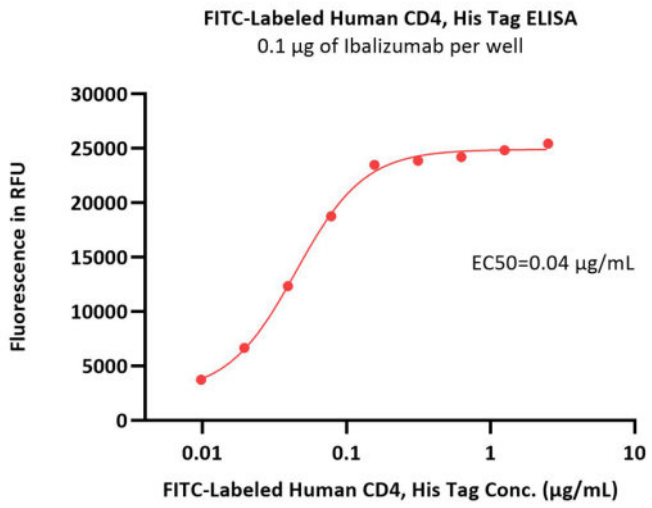
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

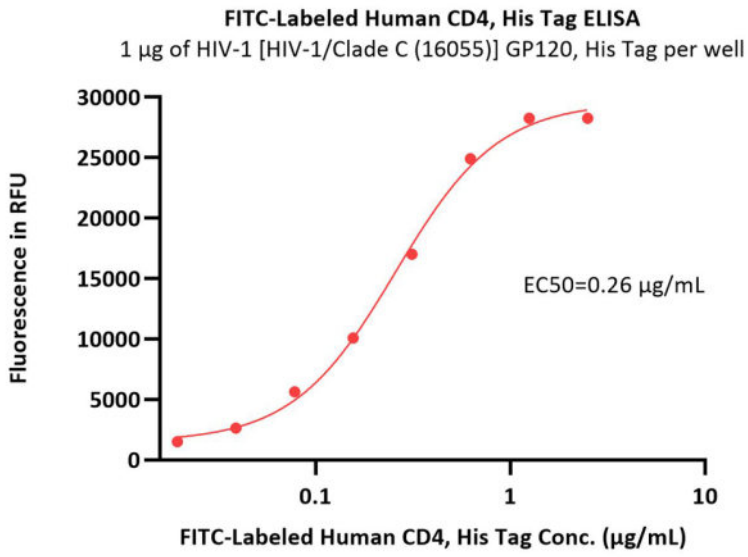


FITC-Labeled Human CD4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

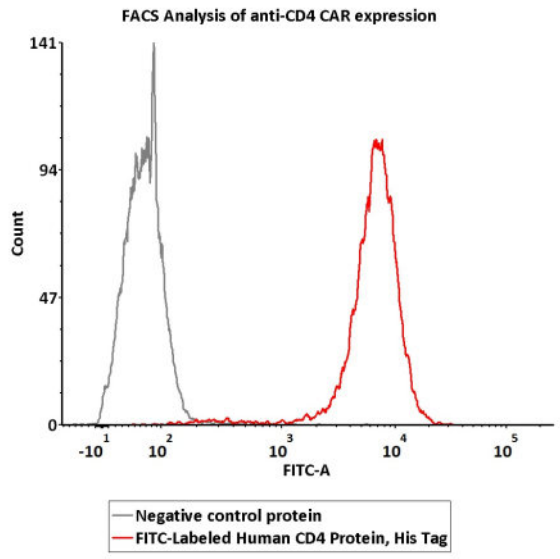


Immobilized Ibalizumab at 1 μg/mL (100 μL/well) can bind FITC-Labeled Human CD4, His Tag (Cat. No. CD4-HF2H7) with a linear range of 0.01-0.156 μg/mL (QC tested).



Immobilized HIV-1 [HIV-1/Clade C (16055)] GP120, His Tag (Cat. No. GP5-V15224) at 10 μg/mL (100 μL/well) can bind FITC-Labeled Human CD4, His Tag (Cat. No. CD4-HF2H7) with a linear range of 0.039-0.625 μg/mL (Routinely tested).

Bioactivity-FACS



2e5 of CD4-CAR-293 cells were stained with 100 μL of 0.3 μg/mL of FITC-Labeled Human CD4, His Tag (Cat. No. CD4-HF2H7) and negative control protein respectively, FITC signal was used to evaluate the binding activity (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.