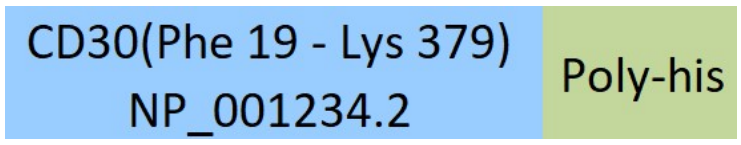
Synonym

TNFRSF8,CD30,D1S166E,Ki-1

Source

FITC-Labeled Human CD30, His Tag(CD0-HF2H4) is expressed from human 293 cells (HEK293). It contains AA Phe 19 - Lys 379 (Accession # NP_001234.2).
Predicted N-terminus: Phe 19

Molecular Characterization



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

The protein has a calculated MW of 40.4 kDa. The protein migrates as 60-100 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 ***2.5-4.5***.

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, 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

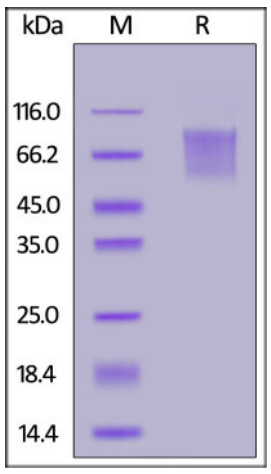
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

This product is stable after storage at:

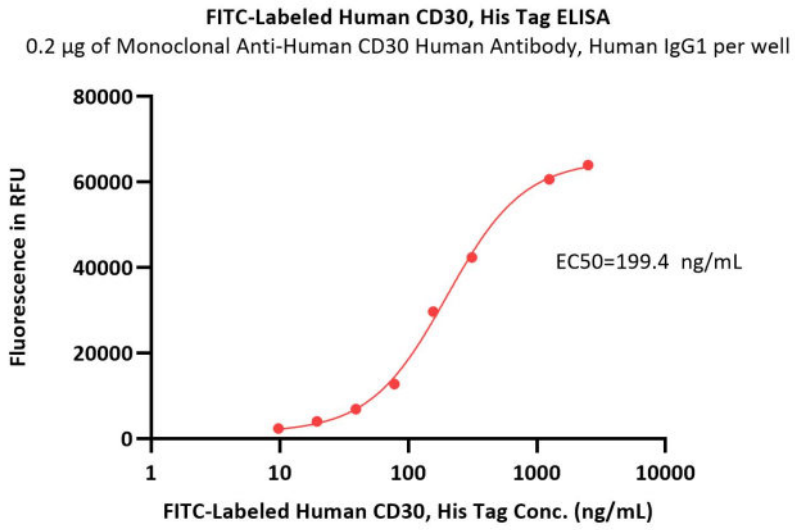
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



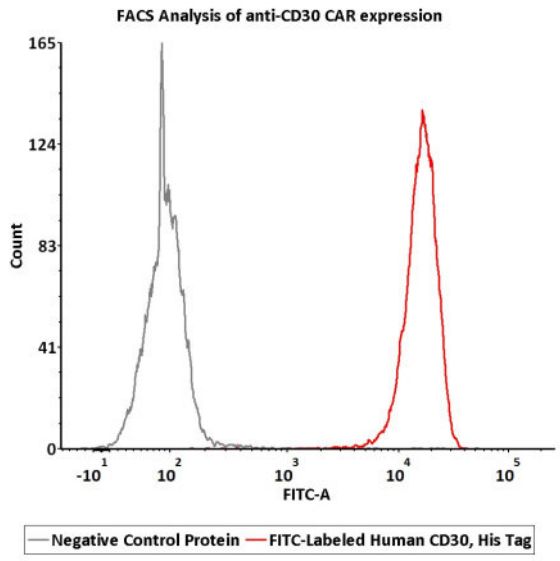
FITC-Labeled Human CD30, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Monoclonal Anti-Human CD30 Human Antibody, Human IgG1 at 2 μg/mL (100 μL/well) can bind FITC-Labeled Human CD30, His Tag (Cat. No. CD0-HF2H4) with a linear range of 10-313 ng/mL (QC tested).

Bioactivity-FACS



2e5 of anti-CD30 CAR-293 cells were stained with 100 μL of 1 μg/mL of FITC-Labeled Human CD30, His Tag (Cat. No.CD0-HF2H4) and negative control protein respectively, FITC signal was used to evaluate the binding activity (QC tested).

Background

Human CD30 is also known as TNFRSF8, is a cell membrane protein of the tumor necrosis factor receptor family and tumor marker. TNFRSF-8 is expressed by activated, but not by resting, T and B cells. Also, CD30 is expressed on classical Hodgkin Lymphoma cells together with CD15. CD30 is the receptor for TNFSF8/CD30L. CD30 can interact with TRAF2 and TRAF5, and mediate the signal transduction that leads to the activation of NF-kappa-B. TNFRSF8 may play a role in the regulation of cellular growth and transformation of activated lymphoblasts. TNFRSF8 is a positive regulator of apoptosis, and also has been shown to limit the proliferative potential of autoreactive CD8 effector T cells and protect the body against autoimmunity.

Clinical and Translational Updates