Synonym

Streptavidin,SA

Source

Streptavidin Protein-FITC (STN-NF113) is expressed from E. coli cells.

Molecular Characterization

The protein has a calculated MW of 13.8 kDa.

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 ***3-6***.

Application

Flow Cytometry

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

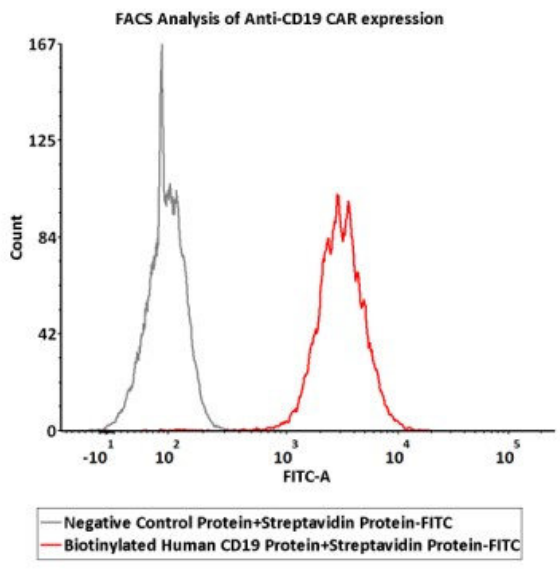
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

Bioactivity-FACS



5e5 of Anti-CD19 CAR-293 cells were stained with 100 μL of 20 μg/mL Biotinylated Human CD19 (20-291) Protein, Fc,Avitag, premium grade (Cat. No. CD9-H82F6) and negative control protein respectively, washed and then followed with 1.25 μg/mL of Streptavidin Protein-FITC (Cat. No. STN-NF113)

and analyzed with FACS. FITC signal was used to evaluate the binding activity (QC tested).

Background

Streptavidin is a tetrameric protein purified from the bacterium Streptomyces avidinii, and exhibits high binding affinity for biotin. Able to bind one molecule of biotin with each subunit. Streptavidin (PI=6.0-7.5) has lower level of non-specific binding to various biological components at physiological pH than avidin (PI=7.4), resulting from its isoelectric point (PI).Streptavidin is useful in affinity chromatography, ELISA, immunohistochemistry and Western Blotting.