

#### **Synonym**

Streptavidin, SA

#### Source

Streptavidin Protein-PE, premium grade(STN-NP117) is expressed from E. coli cells

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

#### **Molecular Characterization**

This protein carries no "tag".

#### Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

### Endotoxin

Less than  $0.2 \; EU$  per  $\mu g$  by the LAL method.

### **Sterility**

Negative

### Mycoplasma

Negative.

#### **Purity**

>90% as determined by SDS-PAGE.

### **Formulation**

Lyophilized from  $0.22 \mu m$  filtered solution in PBS, 0.2 M NaCl, 15 mg/ml HSA, 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

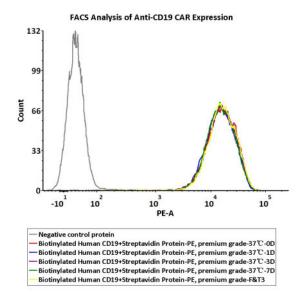
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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-Stability**



5e5 of Anti-CD19 CAR-293 cells were stained with 100  $\mu$ L of 20  $\mu$ g/mL Biotinylated Human CD19 (20-291), Fc,Avitag, premium grade (Cat. No. CD9-H82F6) and negative control protein respectively, washed and then



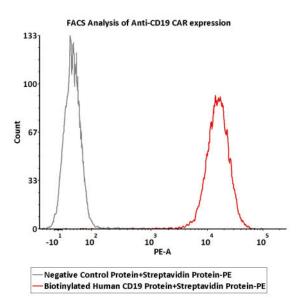
# Streptavidin Protein-PE, premium grade

Catalog # STN-NP117



followed with 2.5  $\mu$ g/mL of Streptavidin Protein-PE, premium grade (Cat. No. STN-NP117) and analyzed with FACS. PE signal was used to evaluate the binding activity (QC tested).

#### **Bioactivity-FACS**



5e5 of Anti-CD19 CAR-293 cells were stained with 100μL 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 2.5 μg/mL of Streptavidin Protein-PE, premium grade (Cat. No. STN-NP117) and analyzed with FACS. PE signal was used to evaluate the binding activity (QC tested).

# **Background**

Streptavidin is a 66KDa tetrameric protein purified from the bacterium Streptomyces avidinii, and exhibits high binding affinity to biotin. Each unit can bind one biotin. Horseradish peroxidase is metalloenzyme, a 44KDa glycoprotein. When incubate with substrates, it produces a coloured, fluorimetric, or luminescent derivatives, which can be detected and quantified. HRP conjugated Streptavidin is widely used for the detection and quantification of biotinylated proteins.

# **Clinical and Translational Updates**

