Biotinylated Human NKG2A&CD94 Protein, Fc,Avitag™

Catalog # NC4-H82F5

Synonym

NKG2A & CD94

Source

Biotinylated Human NKG2A&CD94 Protein, Fc,Avitag(NC4-H82F5) is expressed from human 293 cells (HEK293). It contains AA Ala 113 - Leu 233 & Asp 57-Ile 179 (Accession # P26715-1 (NKG2A) & Q13241-1 (CD94)). Predicted N-terminus: Ala 113 & Asp 57

Molecular Characterization

This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 40.4 kDa & 42.3 kDa. The protein migrates as 50-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

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

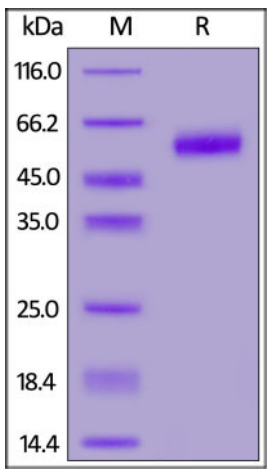
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

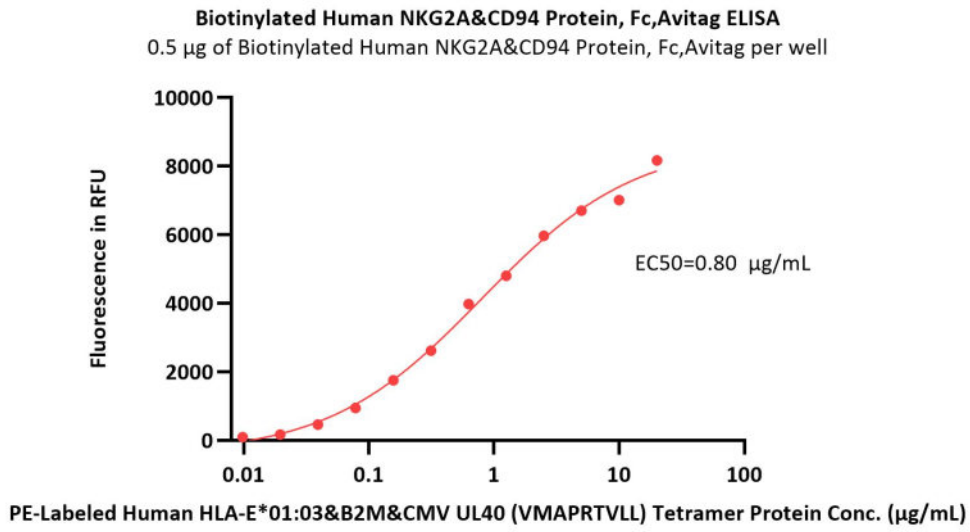
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human NKG2A&CD94 Protein, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Biotinylated Human NKG2A&CD94 Protein, Fc,Avitag (Cat. No. NC4-H82F5) at 5 μg/mL (100 μL/well) can bind PE-Labeled Human HLA-E*01:03&B2M&CMV UL40 (VMAPRTVLL) Tetramer Protein (Cat. No. HLU-HP2H5) with a linear range of 0.01-2.5 μg/mL (QC tested).

Background

CD94 plays a role as a receptor for the recognition of MHC class I HLA-E molecules by NK cells and some cytotoxic T-cells. KLRD1 (CD94) is an antigen preferentially expressed on NK cells and is classified as a type II membrane protein because it has an external C terminus. NKG2A/CD159a is a transmembrane protein belonging to the CD94/NKG2 family of C-type lectin-like receptors that inhibits innate immune system activation. CD94 pairs with the NKG2 molecule as a heterodimer. The CD94/NKG2 complex, on the surface of natural killer cells interacts with Human Leukocyte Antigen (HLA)-E on target cells.

Clinical and Translational Updates