

# **Synonym**

NKG2C & CD94

#### Source

Biotinylated Human NKG2C&CD94, His,Avitag(NC4-H82E3) is expressed from human 293 cells (HEK293). It contains AA Ile 94 - Leu 231 (NKG2C) & Asp 57 - Ile 179 (CD94) (Accession # P26717-1 (NKG2C) & Q13241-1 (CD94)).

Predicted N-terminus: Ile 94

### **Molecular Characterization**

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>).

The protein has a calculated MW of 34.3 kDa. The protein migrates as 45-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### **Formulation**

Lyophilized from  $0.22~\mu m$  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

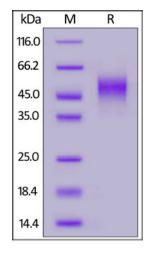
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

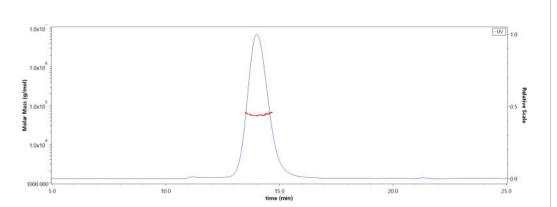
# **SDS-PAGE**



Biotinylated Human NKG2C&CD94, His, Avitag 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**

# **SEC-MALS**



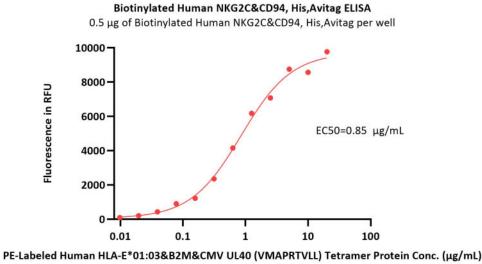
The purity of Biotinylated Human NKG2C&CD94, His, Avitag (Cat. No. NC4-H82E3) is more than 90% and the molecular weight of this protein is around 50-60 kDa verified by SEC-MALS.

Report

# Biotinylated Human NKG2C&CD94 Protein, His,Avitag™ (MALS verified)





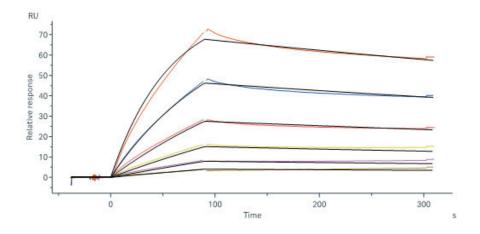


Immobilized Biotinylated Human NKG2C&CD94, His,Avitag (Cat. No. NC4-H82E3) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind PE-Labeled Human HLA-

E\*01:03&B2M&CMV UL40 (VMAPRTVLL) Tetramer Protein (Cat. No.

HLU-HP2H5) with a linear range of 0.01-1.25  $\mu g/mL$  (QC tested).

## **Bioactivity-SPR**



PE-Labeled Human HLA-E\*01:03&B2M&CMV UL40 (VMAPRTVLL) Tetramer Protein (Cat. No. HLU-HP2H5) immobilized on CM5 Chip can bind Biotinylated Human NKG2C&CD94, His,Avitag (Cat. No. NC4-H82E3) with an affinity constant of 21.9 nM as determined in a SPR assay (Biacore 8K) (Routinely 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. NKG2C/CD159c is used as a receptor for NK cells and some cytotoxic T cells to recognize MHC class I HLA-E molecules. 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**

