Biotinylated Human NKG2D / CD314 Protein, Avitag™,His Tag (MALS verified)

Catalog # NKD-H82Q3

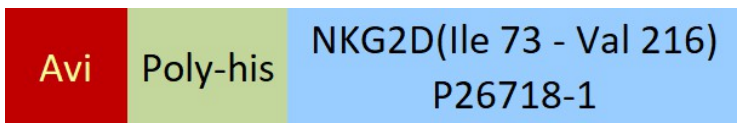
Synonym

NKG2D,CD314,KLRK1,NK cell receptor D

Source

Biotinylated Human NKG2D Protein, Avitag,His Tag(NKD-H82Q3) is expressed from human 293 cells (HEK293). It contains AA Ile 73 - Val 216 (Accession # P26718-1).
Predicted N-terminus: Gly

Molecular Characterization



This protein carries an Avi tag (Avitag™) at the N-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 20.2 kDa. The protein migrates as 28-43 kDa when calibrated against Star Ribbon Pre-stained Protein Marker 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

>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

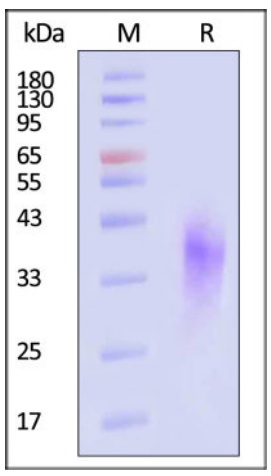
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

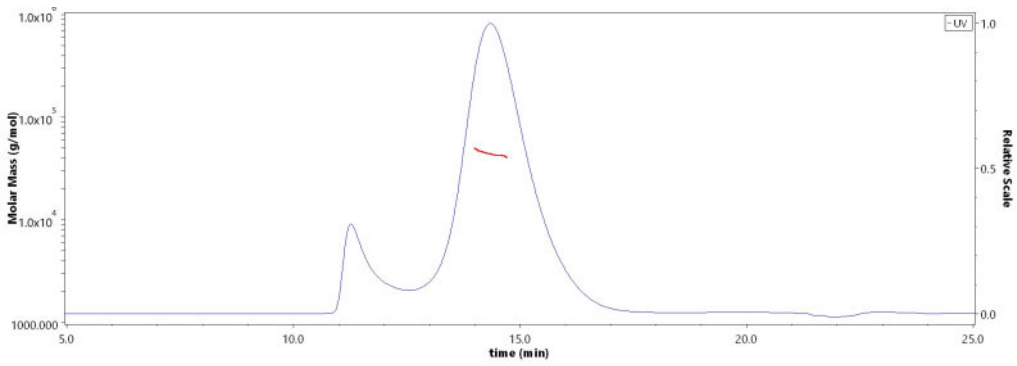
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



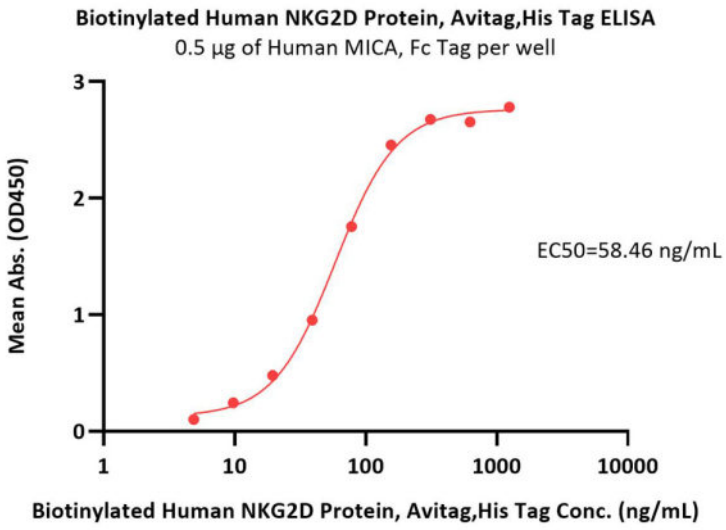
Biotinylated Human NKG2D Protein, Avitag,His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

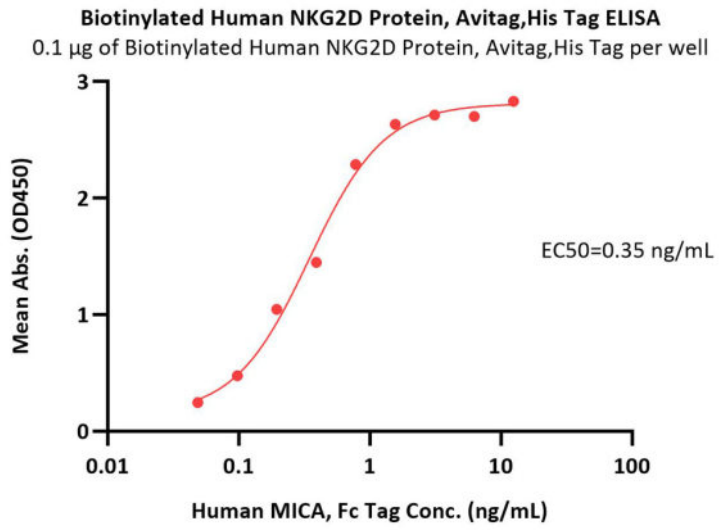


The purity of Biotinylated Human NKG2D Protein, Avitag,His Tag (Cat. No. NKD-H82Q3) is more than 85% and the molecular weight of this protein is around 36-46 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Human MICA, Fc Tag (Cat. No. MIA-H5253) at 5 μg/mL (100 μL/well) can bind Biotinylated Human NKG2D Protein, Avitag,His Tag (Cat. No. NKD-H82Q3) with a linear range of 5-156 ng/mL (QC tested).



Immobilized Biotinylated Human NKG2D Protein, Avitag,His Tag (Cat. No. NKD-H82Q3) at 1 μg/mL (100 μL/well) on streptavidin (STN-N5116) precoated (0.5 μg/well) plate can bind Human MICA, Fc Tag (Cat. No. MIA-H5253) with a linear range of 0.05-0.8 ng/mL (Routinely tested).

Background

NKG2D is a transmembrane protein belonging to the CD94/NKG2 family of C-type lectin-like receptors, also known as KLRK1, CD314, D12S2489E, KLR and killer cell lectin like receptor K1. NKG2D itself forms a homodimer whose ectodomains serve for ligand binding. NKG2D is a major recognition receptor for the detection and elimination of transformed and infected cells as its ligands are induced during cellular stress, either as a result of infection or genomic stress such as in cancer. In NK cells, NKG2D serves as an activating receptor, which itself is able to trigger cytotoxicity. The function of NKG2D on CD8+ T cells is to send co-stimulatory signals to activate them.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.