

# Human NKG2D/CD314 Protein

Cat. No. NKG-HM22D

## Description

<b>Source</b>	Recombinant Human NKG2D/CD314 Protein is expressed from HEK293 with hFc tag and Flag tag at the N-Terminus. It contains Phe78-Val216.
<b>Accession</b>	P26718
<b>Molecular Weight</b>	The protein has a predicted MW of 43.4 kDa. Due to glycosylation, the protein migrates to 50-70 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

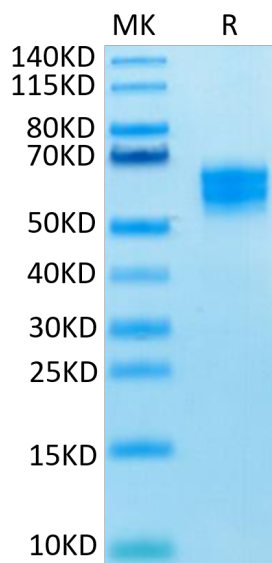
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

NKG2D is a type II transmembrane glycoprotein having an extracellular lectin-like domain. This domain lacks the recognizable calcium-binding sites found in true C-type lectins and binds protein rather than carbohydrate ligands. Human NKG2D is expressed on CD8 alpha beta T cells, gamma  $\delta$  T cells, NK cells and NKT cells.

## Assay Data

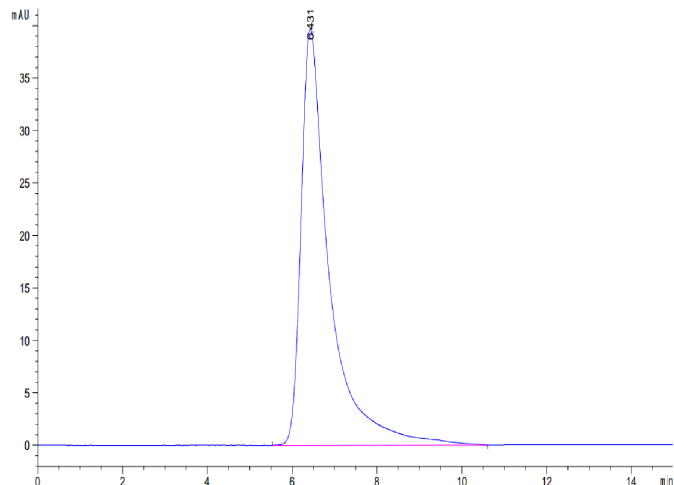
### Bis-Tris PAGE



Human NKG2D on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

Assay Data

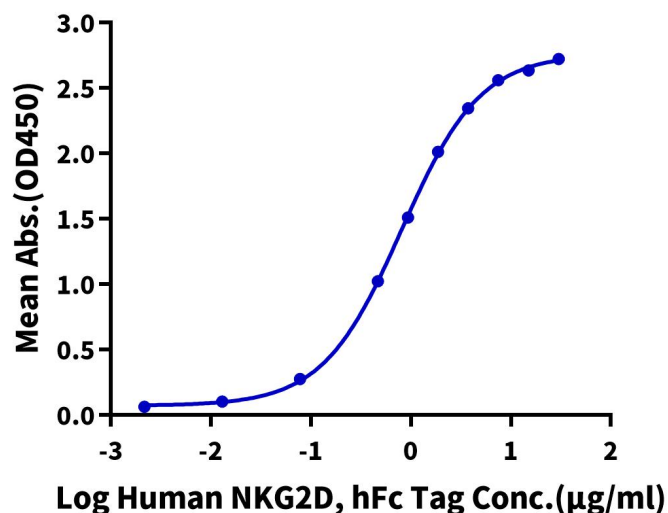


The purity of Human NKG2D is greater than 95% as determined by SEC-HPLC.

ELISA Data

**Human NKG2D, hFc Tag ELISA**

0.5µg Human MICA, His Tag Per Well

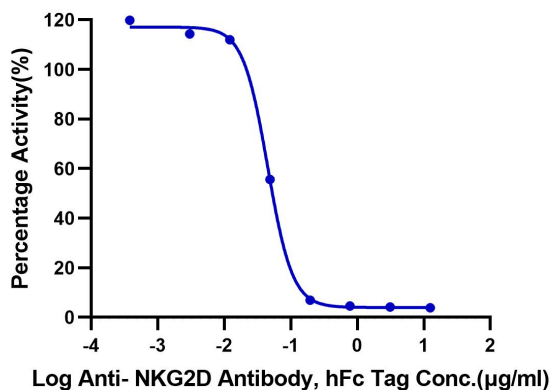


Immobilized Human MICA, His Tag at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human NKG2D, hFc Tag with the EC50 of 0.81µg/ml determined by ELISA (QC Test).

Blocking Data

**Inhibition of Human NKG2D and ULBP-2 Binding**

0.5µg Human NKG2D, hFc Tag Per Well



Serial dilutions of Anti-NKG2D Antibody, hFc Tag were added into Biotinylated Human ULBP-2, His Tag : Human NKG2D, hFc Tag binding reactions. The half maximal inhibitory concentration (IC50) is 45.2ng/ml.