

### Product Data:

**Product SKU:** RPE3681

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P26718

### Protein Information:

**Molecular Mass:** 16.9 kDa

**AP Molecular Mass:** 20-30 kDa

**Tag:** N-6His

**Bio-activity:** Immobilized Human NKG2D-His at 10µg/ml(100 µl/well) can bind Human MICA-Fc(Cat: PKSH032753). The ED50 of Human NKG2D-His is 19.8 ug/ml .

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** CD314; KLRK1;CD314 antigen;Killer cell lectin-like receptor subfamily K member 1; killer cell lectin-like receptor subfamily K; member 1; KLR; NK cell receptor D; NKG2-D; NKG2-D type II integral membrane protein; NKG2-D-activating NK recepto

## Immunogen Information:

**Sequence:** Phe78-Val216

## Background:

NKG2-D type II integral membrane protein (NKG2D) is a type II transmembrane glycoprotein which belongs to the CD94/NKG2 family. NKG2D is expressed on natural killer (NK) cells, CD8+ alpha-beta and gamma-delta T-cells. As an activating and costimulatory receptor, it involved in immunosurveillance upon binding to various cellular stress-inducible ligands displayed at the surface of autologous tumor cells and virus-infected cells. It provides both stimulatory and costimulatory innate immune responses on activated killer (NK) cells, leading to cytotoxic activity. It stimulates perforin-mediated elimination of ligand-expressing tumor cells. Signaling involves calcium influx, culminating in the expression of TNF-alpha. NKG2D participates in NK cell-mediated bone marrow graft rejection and survival of NK cells. It Binds to ligands belonging to various subfamilies of MHC class I-related glycoproteins including MICA, MICB, RAET1E, RAET1G, ULBP1, ULBP2, ULBP3 (ULBP2>ULBP1>ULBP3) and ULBP4.