

# Recombinant Mouse NKG2D Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP51169

Size: 10ug, 100ug

Protein Name: NKG2-D type II integral membrane protein (Killer cell lectin-like receptor subfamily K member 1) (NK cell receptor D) (NKG2-D-activating NK receptor) (CD antigen CD314)

Synonym: Klrk1, Nkg2d

UniProt ID: O54709

UniProt Link: [www.uniprot.org/uniprotkb/O54709/entry](http://www.uniprot.org/uniprotkb/O54709/entry)

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 232 AA

Molecular Weight: 27 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MALIRDRKSHHSEMSKCHNYDLKPAKWDTSQEQQKQRLALTTSQPGENGIIRGRYPKIEKLKISPMFV  
VRVLAIALAIRFTLNTLMWLAIFKETFPVLCNKEVPVSSREGYCGPCPNNWICHRNNCYQFFNEEKT  
WNQSQASCLSQNSSLLKIYSKEEQDFLKLKSYHWMGLVQIPANGSWQWEDGSSLSYNQLTLVEIP  
KGSCAVYGSSFKAYTEDCANLNTYICMKRAV

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant NKG2-D type II integral membrane protein (Killer cell lectin-like receptor subfamily K member 1) (NK cell receptor D) (NKG2-D-activating NK receptor) (CD antigen CD314) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein Function:** Functions as an activating and costimulatory receptor involved in immunosurveillance upon binding to various cellular stress-inducible ligands displayed at the surface of autologous tumor cells and virus-infected cells. Provides both stimulatory and costimulatory innate immune responses on activated killer (NK) cells, leading to cytotoxic activity. Acts as a costimulatory receptor for T-cell receptor (TCR) in CD8(+) T-cell-mediated adaptive immune responses by amplifying T-cell activation. Stimulates perforin-mediated elimination of ligand-expressing tumor cells. Signaling involves calcium influx, culminating in the expression of TNF. Participates in NK cell-mediated bone marrow graft rejection. May play a regulatory role in differentiation and survival of NK cells. Binds to ligands belonging to various subfamilies of MHC class I-related glycoproteins including RAET1A, RAET1B, RAET1C, RAET1D, RAET1E, H60 and MULT1.

**Subcellular Localization:** Cell membrane ; Single-pass type II membrane protein .  
Note=Colocalized with HCST and TYROBP on the cell surface.

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.