

**Goat Anti-NKG2D / KLRK1 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1734a**

**Specification**

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**Goat Anti-NKG2D / KLRK1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P26718</a>
Other Accession	<a href="#">NP_031386</a> , <a href="#">22914</a>
Reactivity	Human
Predicted	Mouse, Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	25304

**Goat Anti-NKG2D / KLRK1 Antibody - Additional Information**

**Gene ID** 22914

**Other Names**

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, CD314, KLRK1, D12S2489E, NKG2D

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-NKG2D / KLRK1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-NKG2D / KLRK1 Antibody - Protein Information**

**Name** KLRK1

**Synonyms** D12S2489E, NKG2D

**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-alpha. 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 MICA, MICB, RAET1E, RAET1G, RAET1L/ULBP6, ULBP1, ULBP2, ULBP3 (ULBP2>ULBP1>ULBP3) and ULBP4.

#### Cellular Location

Cell membrane; Single-pass type II membrane protein Note=Colocalized with HCST on the cell surface

#### Tissue Location

Expressed in natural killer (NK) cells, CD8(+) alpha-beta and gamma-delta T-cells. Expressed on essentially all CD56+CD3- NK cells from freshly isolated PBMC. Expressed in interferon-producing killer dendritic cells (IKDCs).

### Goat Anti-NKG2D / KLRK1 Antibody - Protocols

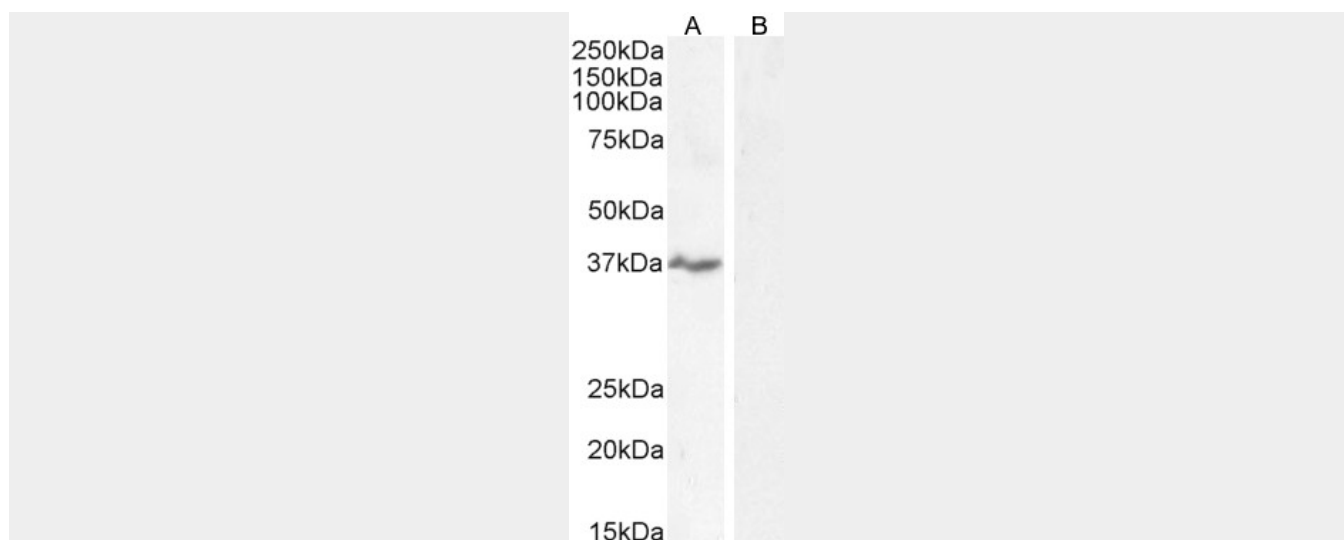
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-NKG2D / KLRK1 Antibody - Images



EB06839 staining (0.3µg/ml) of Human Spleen lysate (RIPA buffer, 35µg total protein per lane). Detected by chemiluminescence.



B06839 staining (0.5ug/ml) of MOLT-4 cell lysate (A) + peptide (B). (35µg protein in RIPA buffer). Detected by chemiluminescence.

#### **Goat Anti-NKG2D / KLRK1 Antibody - Background**

Natural killer (NK) cells are lymphocytes that can mediate lysis of certain tumor cells and virus-infected cells without previous activation. They can also regulate specific humoral and cell-mediated immunity. NK cells preferentially express several calcium-dependent (C-type) lectins, which have been implicated in the regulation of NK cell function. This gene encodes a member of the NKG2 family, and the encoded transmembrane protein is characterized by a type II membrane orientation (extracellular C terminus) and the presence of a C-type lectin domain. The NKG2 gene family is located within the NK complex, a region that contains several C-type lectin genes preferentially expressed in NK cells.

#### **Goat Anti-NKG2D / KLRK1 Antibody - References**

Association of NKG2D genetic polymorphism with susceptibility to chronic hepatitis B in a Han Chinese population. Ma J, et al. J Med Virol, 2010 Sep. PMID 20648603.  
Examination of genetic polymorphisms in newborns for signatures of sex-specific prenatal selection. Ucisik-Akkaya E, et al. Mol Hum Reprod, 2010 Oct. PMID 20587610.  
Intact NKG2D-independent function of NK cells chronically stimulated with the NKG2D ligand Rae-1. Champsaur M, et al. J Immunol, 2010 Jul 1. PMID 20530257.  
Cutting edge: FcR-like 5 on innate B cells is targeted by a poxvirus MHC class I-like immunoevasin. Campbell JA, et al. J Immunol, 2010 Jul 1. PMID 20519648.  
NKG2D costimulates human V gamma 9V delta 2 T cell antitumor cytotoxicity through protein kinase C theta-dependent modulation of early TCR-induced calcium and transduction signals. Nedellec S, et al. J Immunol, 2010 Jul 1. PMID 20511557.