

**Anti-CD159a Antibody**  
Rabbit polyclonal antibody to CD159a  
Catalog # AP60581

## Specification

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### Anti-CD159a Antibody - Product Information

Application	WB
Primary Accession	<a href="#">P26715</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	26314

### Anti-CD159a Antibody - Additional Information

Gene ID 3821

#### Other Names

NKG2A; NKG2-A/NKG2-B type II integral membrane protein; CD159 antigen-like family member A; NK cell receptor A; NKG2-A/B-activating NK receptor; CD159a

#### Target/Specificity

Recognizes endogenous levels of CD159a protein.

#### Dilution

WB~~WB (1/500 - 1/1000)

#### Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

#### Storage

Store at -20 °C. Stable for 12 months from date of receipt

### Anti-CD159a Antibody - Protein Information

Name KLRC1

Synonyms NKG2A {ECO:0000303|PubMed:18083576}

#### Function

Immune inhibitory receptor involved in self-nonsel self discrimination. In complex with KLRD1 on cytotoxic and regulatory lymphocyte subsets, recognizes non-classical major histocompatibility (MHC) class Ib molecule HLA-E loaded with self-peptides derived from the signal sequence of classical MHC class Ia molecules. Enables cytotoxic cells to monitor the expression of MHC class I molecules in healthy cells and to tolerate self (PubMed:<a href="http://www.uniprot.org/citations/18083576" target="\_blank">18083576</a>, PubMed:<a href="http://www.uniprot.org/citations/37264229" target="\_blank">37264229</a>, PubMed:<a href="http://www.uniprot.org/citations/37264229" target="\_blank">37264229</a>, PubMed:<a href="http://www.uniprot.org/citations/37264229" target="\_blank">37264229</a>)

href="http://www.uniprot.org/citations/9430220" target="\_blank">9430220</a>, PubMed:<a href="http://www.uniprot.org/citations/9486650" target="\_blank">9486650</a>). Upon HLA-E-peptide binding, transmits intracellular signals through two immunoreceptor tyrosine-based inhibition motifs (ITIMs) by recruiting INPP5D/SHP-1 and INPPL1/SHP-2 tyrosine phosphatases to ITIMs, and ultimately opposing signals transmitted by activating receptors through dephosphorylation of proximal signaling molecules (PubMed:<a href="http://www.uniprot.org/citations/12165520" target="\_blank">12165520</a>, PubMed:<a href="http://www.uniprot.org/citations/9485206" target="\_blank">9485206</a>). Key inhibitory receptor on natural killer (NK) cells that regulates their activation and effector functions (PubMed:<a href="http://www.uniprot.org/citations/30860984" target="\_blank">30860984</a>, PubMed:<a href="http://www.uniprot.org/citations/9430220" target="\_blank">9430220</a>, PubMed:<a href="http://www.uniprot.org/citations/9485206" target="\_blank">9485206</a>, PubMed:<a href="http://www.uniprot.org/citations/9486650" target="\_blank">9486650</a>). Dominantly counteracts T cell receptor signaling on a subset of memory/effector CD8-positive T cells as part of an antigen-driven response to avoid autoimmunity (PubMed:<a href="http://www.uniprot.org/citations/12387742" target="\_blank">12387742</a>). On intraepithelial CD8-positive gamma-delta regulatory T cells triggers TGFB1 secretion, which in turn limits the cytotoxic programming of intraepithelial CD8-positive alpha-beta T cells, distinguishing harmless from pathogenic antigens (PubMed:<a href="http://www.uniprot.org/citations/18064301" target="\_blank">18064301</a>). In HLA-E-rich tumor microenvironment, acts as an immune inhibitory checkpoint and may contribute to progressive loss of effector functions of NK cells and tumor-specific T cells, a state known as cell exhaustion (PubMed:<a href="http://www.uniprot.org/citations/30503213" target="\_blank">30503213</a>, PubMed:<a href="http://www.uniprot.org/citations/30860984" target="\_blank">30860984</a>).

#### Cellular Location

Cell membrane; Single-pass type II membrane protein

#### Tissue Location

Predominantly expressed in NK cells (at protein level) (PubMed:20952657, PubMed:9430220, PubMed:9485206). Expressed in intraepithelial CD8-positive T cell subsets with higher frequency in gamma-delta T cells than alpha-beta T cells (at protein level) (PubMed:18064301). Expressed in memory gamma-delta T cells (at protein level) (PubMed:20952657). Restricted to a subset of memory/effector CD8-positive alpha-beta T cells (at protein level) (PubMed:12387742) Expressed in intratumoral NK and CD8-positive T cells (PubMed:30503213). Expressed in melanoma-specific cytotoxic T cell clones (at protein level) (PubMed:9485206). KLRD1-KLRC1 and KLRD1-KLRC2 are differentially expressed in NK and T cell populations, with only minor subsets expressing both receptor complexes (at protein level) (PubMed:20952657).

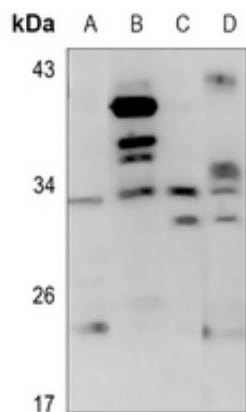
#### Anti-CD159a Antibody - Protocols

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](#)

#### Anti-CD159a Antibody - Images





Western blot analysis of CD159a expression in HEK293T (A), H1688 (B), mouse lung (C), rat testis (D) whole cell lysates.

### **Anti-CD159a Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human CD159a. The exact sequence is proprietary.