

CD159a/c Polyclonal Antibody
Catalog # AP73471

Specification

CD159a/c Polyclonal Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P26715
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal

CD159a/c Polyclonal Antibody - Additional Information

Gene ID 3821

Other Names

KLRC1; 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; KLRC2; NKG2C; NKG2-C type II integral membrane protein; CD159 antigen-like family member C; NK cell receptor C; NKG2-C-activating NK receptor; CD159c; KLRC3; NKG2E; NKG2-E type II integral membrane protein; NK cell receptor E; NKG2-E-activating NK receptor

Dilution

WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications.
IHC-P~~N/A

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

CD159a/c Polyclonal Antibody - Protein Information

Name KLRC1

Synonyms NKG2A {ECO:0000303|PubMed:18083576}

Function

Immune inhibitory receptor involved in self-nonself 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:18083576, PubMed:37264229, PubMed:9430220, PubMed:<a

[9486650](http://www.uniprot.org/citations/9486650)). 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:[12165520](http://www.uniprot.org/citations/12165520)), PubMed:[9485206](http://www.uniprot.org/citations/9485206)). Key inhibitory receptor on natural killer (NK) cells that regulates their activation and effector functions (PubMed:[30860984](http://www.uniprot.org/citations/30860984)), PubMed:[9430220](http://www.uniprot.org/citations/9430220), PubMed:[9485206](http://www.uniprot.org/citations/9485206), PubMed:[9486650](http://www.uniprot.org/citations/9486650)). 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:[12387742](http://www.uniprot.org/citations/12387742)). 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:[18064301](http://www.uniprot.org/citations/18064301)). 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:[30503213](http://www.uniprot.org/citations/30503213), PubMed:[30860984](http://www.uniprot.org/citations/30860984)).

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).

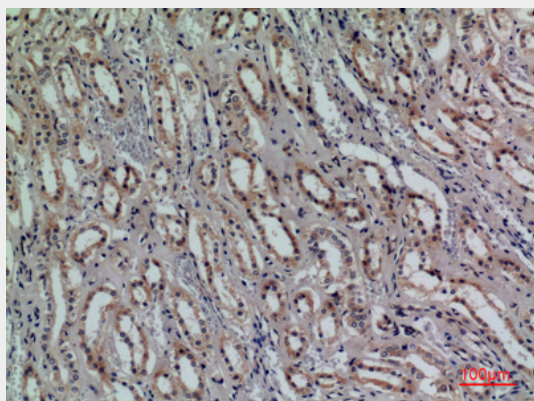
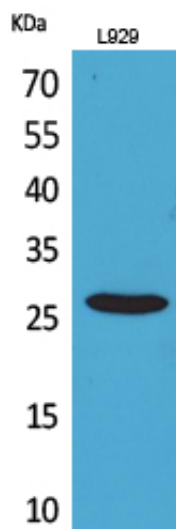
CD159a/c Polyclonal Antibody - Protocols

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](#)

CD159a/c Polyclonal Antibody - Images





CD159a/c Polyclonal Antibody - Background

Plays a role as a receptor for the recognition of MHC class I HLA-E molecules by NK cells and some cytotoxic T-cells.