

CD159a/c Polyclonal Antibody

Catalog # AP73471

Product Information

Application	WB, IHC-P
Primary Accession	P26715
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	26314

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~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

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: 18083576 , PubMed: 37264229 , PubMed: 9430220 , PubMed: 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](#), PubMed:[9485206](#)). Key inhibitory receptor on natural killer (NK) cells that regulates their activation and effector functions (PubMed:[30860984](#), PubMed:[9430220](#), PubMed:[9485206](#), PubMed:[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](#)). 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](#)). 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](#), PubMed:[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).

Background

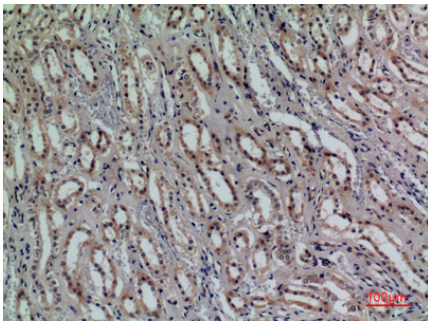
Plays a role as a receptor for the recognition of MHC class I HLA-E molecules by NK cells and some cytotoxic T-cells.

Images



Western Blot analysis of L929 cells using CD159a/c Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

Immunohistochemical analysis of paraffin-embedded human-kidney, antibody was diluted at 1:100



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