Datasheet for ABIN1027685

anti-KLRK1 antibody

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Overview

Quantity:	0.1 mg
Target:	KLRK1
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro)), Functional Studies (Func)

Product Details

Immunogen:	NKL cell line
Clone:	1D11
Isotype:	IgG1 kappa
Specificity:	The mouse monoclonal antibody 1D11 recognizes an extracellular epitope of CD314 / NKG2D, a 42 kDa C-type lectin-like activating receptor expressed by NK cells, gamma/delta T cells, and CD8+ T cells.
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	KLRK1

Target Details

Alternative Name:	CD314 (KLRK1 Products)
Background:	Killer cell lectin like receptor K1,CD314, also known as NKG2D (natural killer receptor G2D) or KLRK1 (killer cell lectin-like receptor subfamily K, member 1), is a homodimeric C-type lectin-like activating receptor and costimulator with type II membrane orientation (C teminus extracellular). CD314 homodimers are associated with DAP10, a membrane adaptor protein that signals similar to CD28 by recruitment of phosphatidylinositol 3-kinase. Engagement of CD314 amplifies antigen-specific T cell responses in CD314-positive T cell populations. In NK cells, CD314 is a primary activating receptor. As CD314 ligands the MHC class-I chain-related proteins A and B (MICA, MICB) and UL16-binding proteins (ULBPs) have been identified.,NKG2D, KLRK1, KLR
Gene ID:	22914
UniProt:	P26718
Pathways:	Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process

Application Details

Application Notes:	Functional application: Blocking of ligand binding. Immunohistochemistry: Recommended dilution: 5-10 µg/mL. Flow cytometry: Recommended dilution: 1-4 µg/mL
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4
Preservative:	Azide free
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in:	Valencia, Hernández-López, Martínez, Hidalgo, Zapata, Vicente, Varas, Sacedón: "Transient

Publications

beta-catenin stabilization modifies lineage output from human thymic CD34+CD1a- progenitors." in: **Journal of leukocyte biology**, Vol. 87, Issue 3, pp. 405-14, (2010) (PubMed).

Hasenkamp, Borgerding, Uhrberg, Falk, Chapuy, Wulf, Jung, Trümper, Glass: "Self-tolerance of human natural killer cells lacking self-HLA-specific inhibitory receptors." in: **Scandinavian journal of immunology**, Vol. 67, Issue 3, pp. 218-29, (2008) (PubMed).

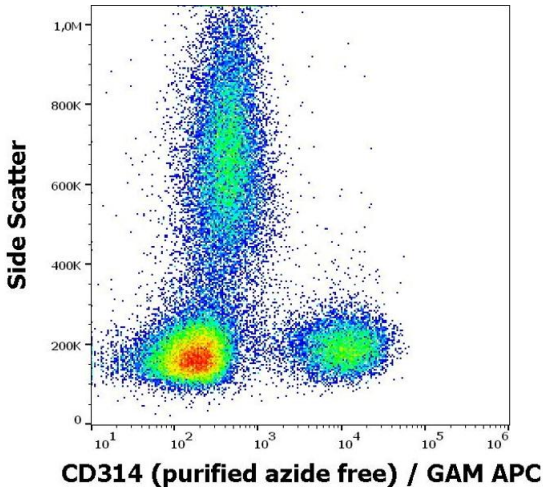
Sangiolo, Martinuzzi, Todorovic, Vitaggio, Vallario, Jordaney, Carnevale-Schianca, Capaldi, Geuna, Casorzo, Nash, Aglietta, Cignetti: "Alloreactivity and anti-tumor activity segregate within two distinct subsets of cytokine-induced killer (CIK) cells: implications for their infusion across major HLA barriers." in: **International immunology**, Vol. 20, Issue 7, pp. 841-8, (2008) (PubMed).

Ebert, Meuter, Moser: "Homing and function of human skin gammadelta T cells and NK cells: relevance for tumor surveillance." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 176, Issue 7, pp. 4331-6, (2006) (PubMed).

Wu, Groh, Spies: "T cell antigen receptor engagement and specificity in the recognition of stress-inducible MHC class I-related chains by human epithelial gamma delta T cells." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 169, Issue 3, pp. 1236-40, (2002) (PubMed).

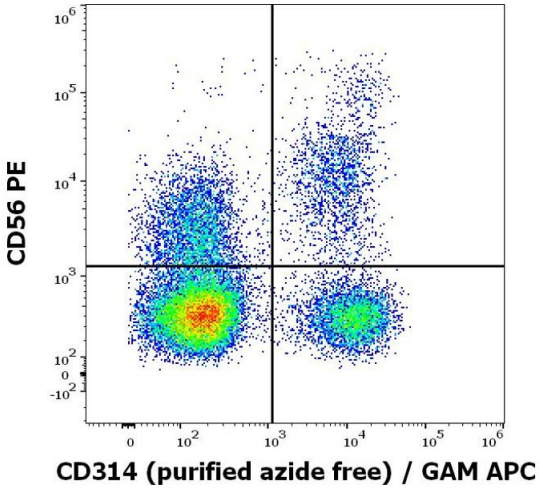
There are more publications referencing this product on: Product page

Images



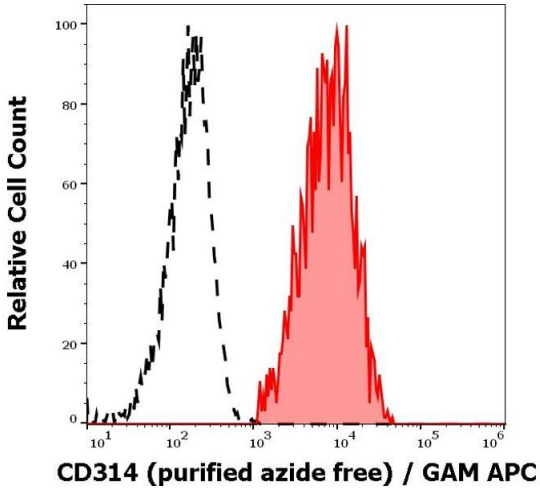
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral blood cells stained using anti-human CD314 (1D11) purified antibody (azide free, concentration in sample 2 µg/mL) GAM APC.



Flow Cytometry

Image 2. Flow cytometry multicolor surface staining pattern of human lymphocytes stained using anti-human CD314 (1D11) purified antibody (azide free, concentration in sample 2 µg/mL) GAM APC and anti-human CD56 (LT56) PE antibody (10 µL reagent / 100 µL of peripheral whole blood).



Flow Cytometry

Image 3. Separation of human CD314 positive CD56 positive NK cells (red-filled) from CD314 negative CD56 negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD314 (1D11) purified antibody (azide free, concentration in sample 2 µg/mL) GAM APC.

