

ARG65379 anti-CD314 / NKG2D antibody [1D11] (FITC)

Package: 100 tests
Store at: 4°C

Summary

Product Description	FITC-conjugated Mouse Monoclonal antibody [1D11] recognizes CD314 / NKG2D
Tested Reactivity	Hu
Tested Application	FACS
Specificity	The clone 1D11 recognizes CD314 / NKG2D, a 42 kDa C-type lectin-like activating receptor expressed by NK cells, gamma/delta T cells, and CD8+ T cells.
Host	Mouse
Clonality	Monoclonal
Clone	1D11
Isotype	IgG1
Target Name	CD314 / NKG2D
Immunogen	NKL cell line
Conjugation	FITC
Alternate Names	NKG2-D-activating NK receptor; CD antigen CD314; D6H12S2489E; NK cell receptor D; NKG2-D type II integral membrane protein; NKG2-D; Killer cell lectin-like receptor subfamily K member 1; Nkg2d

Application Instructions

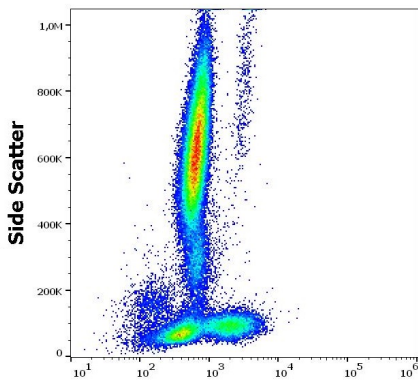
Application table	Application	Dilution
	FACS	4 µl / 10 ⁶ cells
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification Note	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.
Buffer	PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA
Preservative	15 mM Sodium azide
Stabilizer	0.2% (w/v) high-grade protease free BSA
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

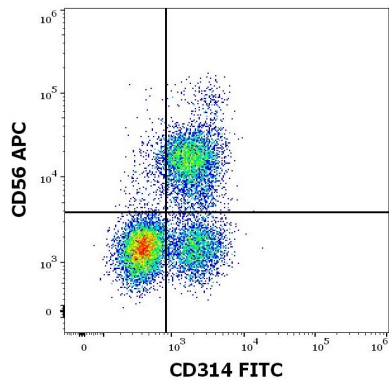
Database links	GeneID: 22914 Human Swiss-port # P26718 Human
Gene Symbol	KLRK1
Gene Full Name	killer cell lectin-like receptor subfamily K, member 1
Background	CD314, also known as NKG2D (natural killer receptor G2D) or KLRK1 (killer cell lectin-like receptor subfamily K, member 1), is a homodimeric C-type lectin-like activating receptor and costimulator with type II membrane orientation (C terminus 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.
Function	Function 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, ULBP1, ULBP2, ULBP3 (ULBP2>ULBP1>ULBP3) and ULBP4. [UniProt]
Research Area	Immune System antibody
Calculated Mw	25 kDa

Images



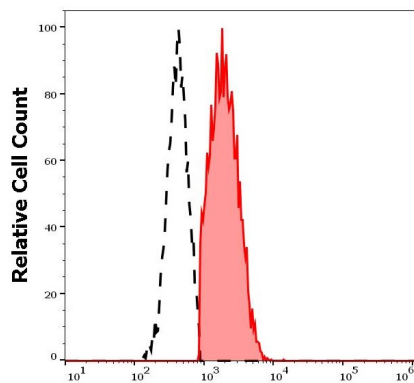
ARG65379 anti-CD314 / NKG2D antibody [1D11] (FITC) FACS image

Flow Cytometry: Human peripheral whole blood stained with ARG65379 anti-CD314 / NKG2D antibody [1D11] (FITC) (4 µl reagent / 100 µl of peripheral whole blood).



ARG65379 anti-CD314 / NKG2D antibody [1D11] (FITC) FACS image

Flow Cytometry: Human lymphocytes stained with ARG65379 anti-CD314 / NKG2D antibody [1D11] (FITC) (4 µl reagent / 100 µl of peripheral whole blood) and anti-CD56 antibody [LT56] (APC) (10 µl reagent / 100 µl of peripheral whole blood).



ARG65379 anti-CD314 / NKG2D antibody [1D11] (FITC) FACS image

Flow Cytometry: Separation of human CD314 / NKG2D positive CD56 positive NK cells (red-filled) from CD314 / NKG2D negative CD56 negative lymphocytes (black-dashed). Human peripheral whole blood stained with ARG65379 anti-CD314 / NKG2D antibody [1D11] (FITC) (4 µl reagent / 100 µl of peripheral whole blood).