

1A-650-T025

Monoclonal Antibody to CD314 Allophycocyanin (APC) conjugated (25 tests)

Clone:	1D11
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 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.
Regulatory Status:	RUO
Immunogen:	NKL cell line
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.25 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
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.

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**Antibodies****References:**

- *Bauer S, Groh V, Wu J, Steinle A, Phillips JH, Lanier LL, Spies T: Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA. *Science*. 1999 Jul 30;285(5428):727-9.
- *Wu J, Cherwinski H, Spies T, Phillips JH, Lanier LL: DAP10 and DAP12 form distinct, but functionally cooperative, receptor complexes in natural killer cells. *J Exp Med*. 2000 Oct 2;192(7):1059-68.
- *Wu J, Groh V, Spies T: 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. *J Immunol*. 2002 Aug 1;169(3):1236-40.
- *Sangiolo D, Martinuzzi E, Todorovic M, Vitaggio K, Vallario A, Jordaney N, Carnevale-Schianca F, Capaldi A, Geuna M, Casorzo L, Nash RA, Aglietta M, Cignetti A: Alloreactivity and anti-tumor activity segregate within two distinct subsets of cytokine-induced killer (CIK) cells: implications for their infusion across major HLA barriers. *Int Immunol*. 2008 Jul;20(7):841-8.
- *Hasenkamp J, Borgerding A, Uhrberg M, Falk C, Chapuy B, Wulf G, Jung W, Trümper L, Glass B: Self-tolerance of human natural killer cells lacking self-HLA-specific inhibitory receptors. *Scand J Immunol*. 2008 Mar;67(3):218-29.
- *Ebert LM, Meuter S, Moser B: Homing and function of human skin gammadelta T cells and NK cells: relevance for tumor surveillance. *J Immunol*. 2006 Apr 1;176(7):4331-6.
- *Valencia J, Hernández-López C, Martínez VG, Hidalgo L, Zapata AG, Vicente A, Varas A, Sacedón R: Transient beta-catenin stabilization modifies lineage output from human thymic CD34+CD1a- progenitors. *J Leukoc Biol*. 2010 Mar;87(3):405-14.

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