

Brilliant Violet 785™ anti-human CD314 (NKG2D)

Catalog # / Size: 2204150 / 100 tests
2204145 / 25 tests

Clone: 1D11

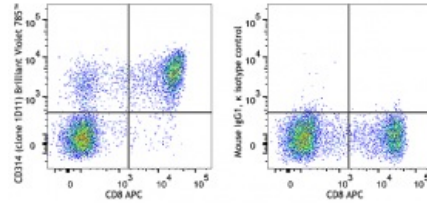
Isotype: Mouse IgG1, κ

Reactivity: Human, Non-human primate

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 785™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 785™ and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD8 FITC and CD314 (clone 1D11) Brilliant Violet 785™ (top) or mouse IgG1

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 785™ is a trademark of Sirigen Group Ltd.

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Application Notes: The 1D11 antibody blocks MICA binding to T cells, induces redirected lysis, and costimulates T cells activation and proliferation. Additional reported (for the relevant formats) applications include: immunoprecipitation^{1,2}, blocking of ligand binding, induction of redirected cell lysis, and costimulation of T cells proliferation²⁻⁷.

- Application References:**
1. Vance RE, *et al.* 1999. *J. Exp. Med.* 190:1801.
 2. Raulet DH. 2003. *Nat. Rev. Immunol.* 3:781.
 3. Lohwasser S, *et al.* 1999. *Eur. J. Immunol.* 29:755.
 4. Jamieson AM, *et al.* 2002.

Description: CD314 is a homodimeric C-type lectin-like protein also known as NKG2D. It is expressed on NK cells, CD8⁺ T cells, γ/δ T cells, and *in vitro* induced LAK cells. Several molecules have been identified as the ligands for NKG2D, including MHC class-I chain-related protein A (MICA), MICB, and UL16-binding proteins (ULBPs). NKG2D has no intrinsic signaling capacity, but attains this by non-covalent association with DAP10 or DAP12 adaptors. In addition to being a primary activation receptor on NK cells, NKG2D is also a costimulatory receptor for TCR-mediated T cell proliferation and cytokine production. The interaction of NKG2D with its ligands plays a role in the immune surveillance against pathogen and tumor cells, and in the pathogenesis of autoimmune diseases.

Antigen
References:

1. Vance RE, *et al.* 1999. *J. Exp. Med.* 190:1801.
2. Raulet DH. 2003. *Nat. Rev. Immunol.* 3:781.
3. Lohwasser S, *et al.* 1999. *Eur. J. Immunol.* 29:755.
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