

# CD314 (NKG2D) Monoclonal Antibody (1D11), Functional Grade, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	1D11
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_469116

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Flow Cytometry (Flow)	0.06 µg/test	1 Publication
Neutralization (Neu)	Assay-Dependent	1 Publication
Functional Assay (FN)	Assay-Dependent	-

## Product Specific Information

**Description:** The 1D11 monoclonal antibody reacts with the human NKG2D, a 42 kDa lectin-like molecule expressed by NK cells, gamma delta T cells, CD8+ T cells, and some CD4+ T cells. Human NKG2D forms complexes with DAP10, a membrane adaptor protein, and has the ability to costimulate multiple NK activation receptors. The counter-receptor for human NKG2D has been identified as MICA/MICB expressed on epithelial tumors from lung, breast, kidney, ovary, prostate and colon carcinoma. 5C6 and 1D11 block binding of soluble MICA to gamma delta TCR T cell clones and inhibit lysis by these cells. 5C6 and 1D11 induced NKG2D function of redirected lysis of FcReceptor bearing P815 cells.

**Applications Reported:** The 1D11 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and immunohistochemical staining. It has also been reported in inhibition of ligand binding in in vitro assays. (Fluorochrome-conjugated 1D11 is recommended for use in flow cytometric analysis).

**Applications Tested:** This 1D11 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 0.06 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Storage and handling:** Use in a sterile environment.

Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

3 References

Immunohistochemistry (1)

<p>Proceedings of the National Academy of Sciences of the United States of America</p> <p><b>Stimulation of T cell autoreactivity by anomalous expression of NKG2D and its MIC ligands in rheumatoid arthritis.</b></p> <p>"Published figure using CD314 (NKG2D) monoclonal antibody (Product # 16-5878-82) in Flow Cytometry"</p> <p>Authors: Groh V,Bruhl A,El-Gabalawy H,Nelson JL,Spies T</p>	<p><b>Year</b></p> <p>2003</p>
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Flow Cytometry (1)

<p>Proceedings of the National Academy of Sciences of the United States of America</p> <p><b>Stimulation of T cell autoreactivity by anomalous expression of NKG2D and its MIC ligands in rheumatoid arthritis.</b></p> <p>"Published figure using CD314 (NKG2D) monoclonal antibody (Product # 16-5878-82) in Flow Cytometry"</p> <p>Authors: Groh V,Bruhl A,El-Gabalawy H,Nelson JL,Spies T</p>	<p><b>Year</b></p> <p>2003</p>
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Neutralization (1)

<p>Bioscience reports</p> <p><b>miR-20a regulates sensitivity of colorectal cancer cells to NK cells by targeting MICA.</b></p> <p>"Published figure using CD314 (NKG2D) monoclonal antibody (Product # 16-5878-82) in Neutralization"</p> <p>Authors: Tang S,Fu H,Xu Q,Zhou Y</p>	<p><b>Year</b></p> <p>2019</p>
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