

CD152 (CTLA-4) Monoclonal Antibody (14D3), Functional Grade, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Rhesus monkey
Published Species	Human
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	14D3
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_469080

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	10 Publications
ELISA (ELISA)	-	1 Publication
Neutralization (Neu)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	1 Publication
In vitro Assay (IV)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: The 14D3 monoclonal antibody reacts with human CD152, also known as cytotoxic T lymphocyte antigen-4 (CTLA-4). CTLA-4, a protein with structural similarities to CD28, is expressed on activated T cells (activated B cells may also express CTLA-4) and binds the B7 family members, CD80 (B7-1) and CD86 (B7-2), with higher affinity than CD28 does. CTLA-4 and CD28 appear to deliver opposing signals to T cells: while CD28 is a potent costimulator, CTLA-4 restricts the progression of T cells to an activated state by inhibiting IL-2 secretion and cellular proliferation. The cytoplasmic portion of CTLA-4 contains ER retention motifs, resulting in intracellular localization of a large proportion of newly synthesized CTLA-4 in response to TCR signaling.

The 14D3 antibody also recognizes rhesus monkey and has inhibitor activity.

Applications Reported: The 14D3 antibody has been reported for use in flow cytometric analysis. It has also been reported in in vitro inhibition studies. (Please use Functional Grade purified 14D3 in functional assays).

Applications Tested: The 14D3 antibody has been tested by flow cytometric analysis of PHA stimulated normal human

peripheral blood cells. This can be used at less than or equal to 0.25 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Furthermore, due to the intracellular localization of a large portion of CTLA-4, for complete detection it may be necessary to assess intracellular expression, in addition to surface expression of CTLA-4.

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.

Flow Cytometry (10)

<p>Journal for immunotherapy of cancer</p> <p>Cancer stem-like cells evade CD8⁺CD103⁺ tumor-resident memory T (T_{RM}) lymphocytes by initiating an epithelial-to-mesenchymal transition program in a human lung tumor model.</p> <p>"Published figure using CD152 (CTLA-4) monoclonal antibody (Product # 16-1529-82) in Flow Cytometry"</p> <p>Authors: Corgnac S,Damei I,Gros G,Caidi A,Terry S,Chouaib S,Deloger M,Mami-Chouaib F</p>	<p>Year 2022</p>
<p>Nature communications</p> <p>Engineering advanced logic and distributed computing in human CAR immune cells.</p> <p>"Published figure using CD152 (CTLA-4) monoclonal antibody (Product # 16-1529-82) in Flow Cytometry"</p> <p>Authors: Cho JH,Okuma A,Sofjan K,Lee S,Collins JJ,Wong WW</p>	<p>Year 2021</p>

[View more Flow references on thermofisher.com](#)

ELISA (1)

<p>Frontiers in immunology</p> <p>Immunoepitidomics-Guided Warehouse Design for Peptide-Based Immunotherapy in Chronic Lymphocytic Leukemia.</p> <p>"16-1529-82 was used in ELISA to develop an immunoepitidome-guided workflow for the design of tumor-associated off-the-shelf peptide warehouses for broadly applicable personalized therapeutics."</p> <p>Authors: Nelde A,Maringer Y,Bilich T,Salih HR,Roerden M,Heitmann JS,Marcu A,Bauer J,Neidert MC,Denzlinger C, Illerhaus G,Aulitzky WE,Rammensee HG,Walz JS</p>	<p>Year 2021</p> <p>Species Human</p>
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Functional Assay (1)

<p>Oncotarget</p> <p>CTLA-4 positive breast cancer cells suppress dendritic cells maturation and function.</p> <p>"16-1529 was used in Western Blotting to highlight the clinical application of CTLA-4 blockade therapy in breast cancer."</p> <p>Authors: Chen X,Shao Q,Hao S,Zhao Z,Wang Y,Guo X,He Y,Gao W,Mao H</p>	<p>Year 2017</p> <p>Species Human</p>
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More applications with references on thermofisher.com

- IV (1)
- Misc (1)

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