

CD152 (CTLA-4) Monoclonal Antibody (14D3), PerCP-eFluor™ 710, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human, Rhesus monkey
Published Species	Mouse, Human, Rhesus monkey
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), PerCP-eFluor™ 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	14D3
Conjugate	PerCP-eFluor™ 710
Excitation/Emission Max	482/708 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573718

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.03 µg)/test	13 Publications

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: This 14D3 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 14D3 antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of stimulated human peripheral blood cells using the Intracellular Fixation & Permeabilization Buffer Set (cat. 88-8824) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins located under the Resources Tab online. This can be used at 5 µL (0.03 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.

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.

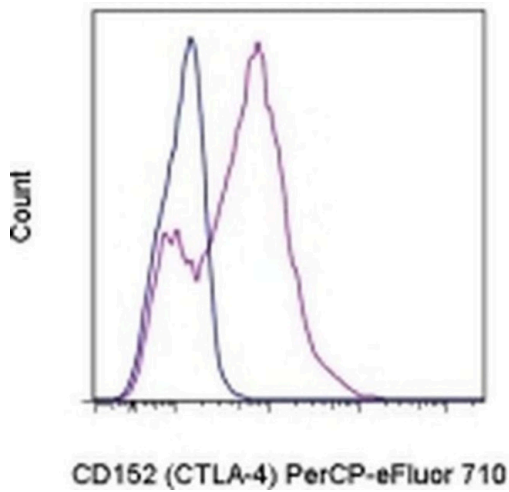
PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD152 (CTLA-4) Monoclonal Antibody (14D3), PerCP-eFluor™ 710, eBioscience™



CD152 (CTLA-4) Antibody (46-1529-42) in Flow
PHA-stimulated human peripheral blood cells were intracellularly stained with Mouse IgG2a K Isotype Control PerCP-eFluor® 710 (Product # 46-4724-82) (blue histogram) or Anti-Human CD152 (CTLA-4) PerCP-eFluor® 710 (purple histogram) using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol. Cells in the lymphocyte gate were used for analysis.

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Flow Cytometry (13)

Journal for immunotherapy of cancer	Year 2022
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.	
"Published figure using CD152 (CTLA-4) monoclonal antibody (Product # 46-1529-42) in Flow Cytometry"	
Authors: Corgnac S,Damei I,Gros G,Caidi A,Terry S,Chouaib S,Deloger M,Mami-Chouaib F	
Journal of autoimmunity	Year 2021
Role of the thymus in spontaneous development of a multi-organ autoimmune disease in human immune system mice.	Species Mouse
"46-1529-42 was used in Flow cytometry/Cell sorting to evaluate the role of the thymus in development of multi-organ autoimmunity in human immune system (HIS) mice."	
Authors: Khosravi-Maharlooei M,Li H,Hoelzl M,Zhao G,Ruiz A,Misra A,Li Y,Teteloshvili N,Nauman G,Danzl N,Ding X, Pinker EY,Obradovic A,Yang YG,luga A,Creusot RJ,Winchester R,Sykes M	

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