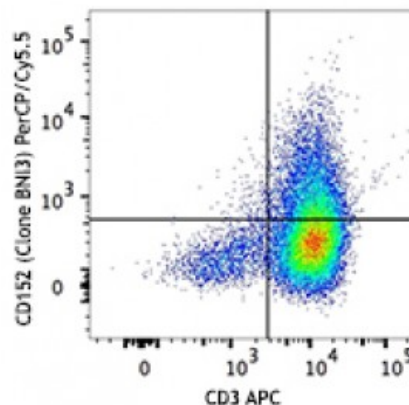


**PerCP/Cyanine5.5 anti-human CD152 (CTLA-4)**

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| <b>Catalog # / Size:</b> | 2448040 / 100 tests<br>2448035 / 25 tests  |
| <b>Clone:</b>            | BNI3   |
| <b>Isotype:</b>          | Mouse IgG2a, κ   |
| <b>Immunogen:</b>        | Extracellular domain of human CTLA-4 and constant regions of the human IgG heavy chain (CTLA-4/IgG)  |
| <b>Reactivity:</b>       | Human  |
| <b>Preparation:</b>      | The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions. The solution is free of unconjugated PerCP/Cyanine5.5 and unconjugated antibody. |
| <b>Formulation:</b>      | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).  |
| <b>Concentration:</b>    | Lot-specific   |



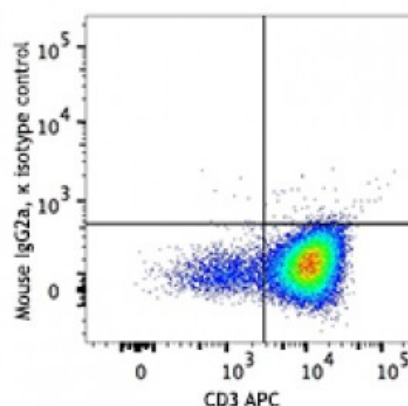
PHA-stimulated human peripheral blood mononuclear cells (day-3) were stained with CD3 APC and PerCP/Cy5.5 anti-human CD152 (clone BNI3, top), or PerCP/Cy5.5 mouse IgG2a, κ isotype control (bottom).

**Applications:**

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| <b>Applications:</b>      | Flow Cytometry   |
| <b>Recommended Usage:</b> | 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. |

\* PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.

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| <b>Application References:</b> | 1. Kuiper HM, <i>et al.</i> 1995. <i>J. Immunol.</i> 155:1776.<br>2. Castan J, <i>et al.</i> 1997. <i>Immunology</i> 90:265.<br>3. Lee CC, <i>et al.</i> 2009. <i>Pediatr. Allergy Immunol.</i> 20:624.<br>4. Pistillo MP, <i>et al.</i> |
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| <b>Description:</b> | CD152, also known as Cytotoxic T-Lymphocyte Antigen 4 (CTLA-4), is a 33 kD member of the immunoglobulin superfamily. It is transiently expressed on activated T cells. CTLA-4 is expressed on the surface of helper T cells and transmits an inhibitory signal to T cells. Regulatory T cells express high levels of CTLA-4. CTLA-4 (CD152) is similar to CD28 in amino acid sequence, structure, and genomic organization. Whereas CD28 delivers a costimulatory signal in T cell activation, CTLA-4 negatively regulates cell-mediated immune responses through interaction with CD80 (B7-1) and CD86 (B7-2) present on antigen presenting cells (APC). CTLA-4 is thought to play a role in the induction and maintenance of |
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immunological tolerance as well as the development of protective immunity and thymocyte regulation.

Mutations in the CTLA-4 gene have been associated with various autoimmune diseases, such as systemic lupus erythematosus, insulin-dependent diabetes mellitus, and other autoimmune diseases. A transcript of the CTLA-4 gene that may represent a native soluble form of CTLA-4 (sCTLA-4) showed that eleven of twenty patients with autoimmune thyroid disease (ATD) had a high concentration of sCTLA-4, whereas only 1 of 30 apparently healthy volunteers contained measurable levels. sCTLA-4 immunoreactivity was inhibited by its binding to B7.1, suggesting that sCTLA-4 is a functional receptor. sCTLA-4 also plays a role in the initial immune response to infection of immune cells by HIV, along with the CD-1 pathway and others.

**Antigen  
References:**

1. Kuiper HM, *et al.* 1995. *J. Immunol.* 155:1776.
2. Castan J, *et al.* 1997. *Immunology* 90:265.
3. Lee CC, *et al.* 2009. *Pediatr. Allergy Immunol.* 20:624.
4. Pistillo MP, *et al.*