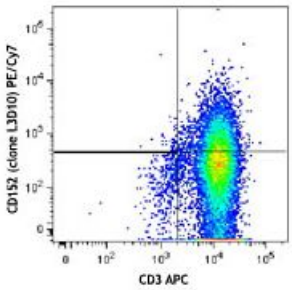
SONY

Product Data Sheet

PE/Cyanine7 anti-human CD152 (CTLA-4)

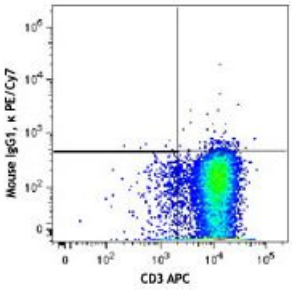
Catalog # / Size:	2349570 / 100 tests 2349565 / 25 tests
Clone:	L3D10
Isotype:	Mouse IgG1, κ
Immunogen:	Extracellular domain of human CTLA-4 and human IgG1 Fc fusion protein
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	VII 70312
Concentration:	Lot-specific



PHA-stimulated (3-day) human peripheral blood lymphocytes were stained with CD3 APC and CD152 (clone L3D10) PE/Cy7 (top) or mouse IgG1 PE/Cy7 isotype control (bottom)

Applications:

Applications:	Flow Cytometry, Intracellular Staining for 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.



For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.
Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

Application Notes:

Other Detection: The biotinylated L3D10 antibody is useful as the detection antibody in a sandwich Other assay, when used in conjunction with the purified A3.6B10.G1 antibody (Cat. No. 525401) as the capture antibody and recombinant human CTLA-4 (Cat. No. 591909) as the standard.

Flow Cytometry: The fluorochrome-labeled L3D10 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify CTLA-4-producing cells within mixed cell populations.

Note: For testing human soluble CTLA-4 in serum, plasma or cell culture supernatant, LEGEND MAX™ Human Soluble CTLA-4 Other Kit with Pre-coated Plates (Cat. No. 437407 & 437408) are specially developed and recommended.

Additional reported applications (for the relevant formats) include: Blocking of CTLA-4/B7-1 interaction and blocking of CTLA-4-mediated inhibitory function to promote T cell expansion[1,2].

Application References:

1. May K, *et al.* 2005. *Blood* 105:1114. (Block)
2. Lute K, *et al.* 2005. *Blood* 106:3127. (Block)

Description:

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. CTLA4 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 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. sCTLA4 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. Barclay N, *et al.* The Leukocyte Antigen FactsBook. Academic Press Inc. San Diego.
2. Kuiper H, *et al.* 1995. *J. Immunol.* 155:1776.
3. Lindsten T, *et al.* 1993. *J. Immunol.* 151:3489.
4. Morton P, *et al.* 1996. *J. Immunol.* 156:1047.

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.