

Technical Data Sheet

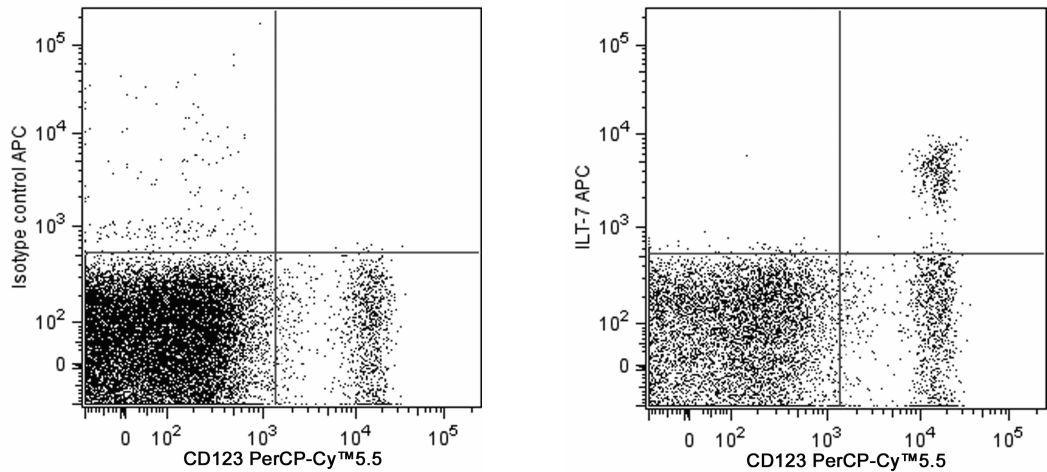
APC Mouse anti-Human ILT7 (CD85g)

Product Information

Material Number:	562355
Alternate Name:	LILRA4; CD85g; ILT7; ILT-7; Immunoglobulin-like transcript 7
Size:	100 tests
Vol. per Test:	5 µl
Clone:	17G10.2
Immunogen:	ILT7-FcεRIγ-transfected 2B4 cells
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 17G10.2 monoclonal antibody specifically binds to human Immunoglobulin Like Transcript 7 (ILT7), also known as CD85g. The ILT7 protein is encoded by the *LILRA4* (*Leukocyte Immunoglobulin Like Receptor subfamily A member 4*) gene. ILT7 is a member of immunoglobulin-like transcripts (ILT) or leukocyte immunoglobulin-like receptor (LIR) gene family. ILT7 is selectively expressed on plasmacytoid dendritic cells (pDC) but not on myeloid dendritic cells or other peripheral blood leukocytes. In response to IL-3, IL-3 receptor complex signaling downregulates ILT7 expression by pDC. ILT7 associates with the FcεRIγ signal adapter protein to form a receptor complex that can signal through activation of an immunoreceptor-based tyrosine activation motif (ITAM)-mediated signaling pathway. Signaling through the ILT7-FcεRIγ receptor complex negatively regulates the innate immune functions of pDC. ILT7 crosslinking inhibits TLR responses by pDC such as the stimulated production of type I interferon and other cytokines. Bone marrow stromal cell antigen 2 (BST2) has been identified as a biological ligand for ILT7.



Multicolor flow cytometric analysis of ILT7 expressed on human peripheral blood lymphocytes. Human peripheral blood mononuclear cells (PBMC) were stained with FITC Lineage Cocktail 1 (lin 1) (CD3, CD14, CD16, CD19, CD20, CD56; Cat. No. 340546), PerCP-Cy™5.5 Mouse Anti-Human CD123 (Cat. No. 558714) and either APC Mouse IgG1 κ Isotype Control (Cat. No. 550854; Left Panel) or APC Mouse Anti-Human ILT7 (CD85g) antibody (Cat. No. 562355; Right Panel). The two-color flow cytometric dot plots show ILT7 (or Ig isotype control staining) expression patterns of Lin-1-negative, CD123-positive cells with the forward and side-light scattering characteristics of viable PBMC. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Recommended Assay Procedure:

Note: For best staining results, cell samples should be stained and maintained at 4-8°C before flow cytometric analysis.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
550854	APC Mouse IgG1 κ Isotype Control	50 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
7. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

Plasmacytoid dendritic cell-specific receptor ILT7-Fc epsilonRI gamma inhibits Toll-like receptor-induced interferon production. *J Exp Med.* 2006; 203(6):1399-1405. (Immunogen: Bioassay, Flow cytometry, Inhibition)

Regulation of TLR7/9 responses in plasmacytoid dendritic cells by BST2 and ILT7 receptor interaction. *J Exp Med.* 2009; 206(7):1603-1614. (Biology)

Signaling and ligand interaction of ILT7: receptor-mediated regulatory mechanisms for plasmacytoid dendritic cells. *Immunol Rev.* 2010; 234(1):163-176. (Biology)

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