

Technical Data Sheet

Purified NA/LE Mouse anti-Human ILT7 (CD85g)

Product Information

Material Number:	562500
Alternate Name:	LILRA4; CD85g; ILT7; ILT-7; Immunoglobulin-like transcript 7
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	17G10.2 (also known as 17.2)
Immunogen:	ILT7-FcεRIγ-transfected 2B4 cells
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered. Endotoxin level is ≤0.01 EU/µg (≤0.001 ng/µg) of protein as determined by the LAL assay.

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.

Preparation and Storage

Store undiluted at 4°C.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
Functional assay	Reported
Calcium Flux	Reported
Inhibition	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
562340	PE Mouse anti-Human ILT7 (CD85g)	100 tests	17G10.2
562355	APC Mouse anti-Human ILT7 (CD85g)	50 tests	17G10.2
554656	Stain Buffer (FBS)	500 ml	(none)
553447	Purified NA/LE Mouse IgG1 κ Isotype Control	0.5 mg	107.3
554721	Purified NA/LE Mouse IgG1 κ Isotype Control	0.5 mg	107.3

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Cao W, Bover L. Signaling and ligand interaction of ILT7: receptor-mediated regulatory mechanisms for plasmacytoid dendritic cells. *Immunol Rev.* 2010; 234(1):163-176. (Clone-specific: Activation, Calcium Flux, Flow cytometry, Inhibition)
 Cao W, Bover L, Cho M, et al. Regulation of TLR7/9 responses in plasmacytoid dendritic cells by BST2 and ILT7 receptor interaction. *J Exp Med.* 2009; 206(7):1603-1614. (Clone-specific: Inhibition)
 Cao W, Rosen DB, Ito T, et al. 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: Activation, Calcium Flux, Flow cytometry, Functional assay, Inhibition)

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