Technical Data Sheet

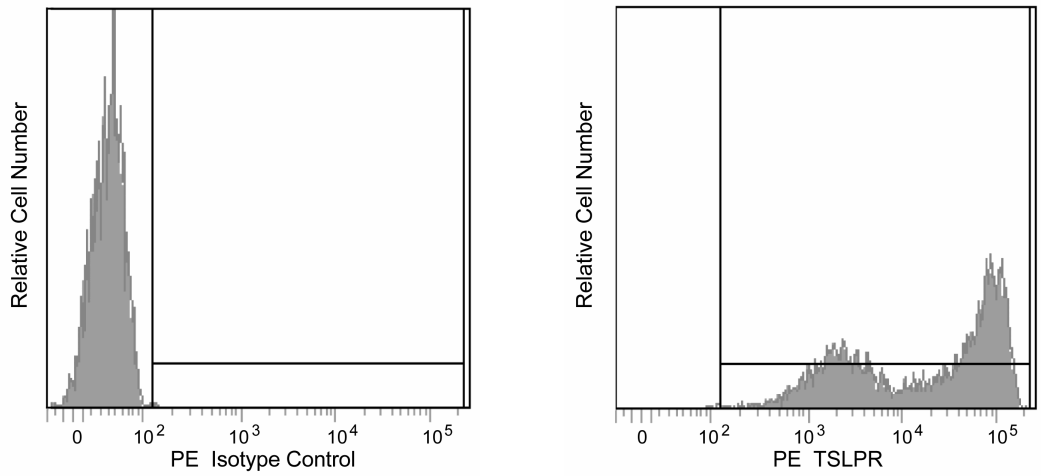
PE Mouse Anti-Human TSLP Receptor

Product Information

Material Number:	**563149**
Alternate Name:	CRL2; CRLF2; CRLF2Y; Cytokine receptor-like factor 2; IL-XR; TSLPR
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	1F11/TSLPR (also known as 1F11 and AB81_85.1F11)
Immunogen:	Human TSLP Receptor Transfected Cell Line
Isotype:	Mouse IgG1, κ
Reactivity:	Tested in Development: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 1F11/TSLPR monoclonal antibody specifically binds to Thymic Stromal Lymphopoietin Receptor (TSLPR). TSLPR is a member of the hematopoietin receptor superfamily and is also known as Cytokine Receptor-like Factor 2 (CRL2, CRLF2Y, CRLF2). The functional TSLPR complex consists of two subunits, TSLPR and the alpha subunit of the Interleukin-7 Receptor (IL-7Rα). Analysis of the TSLPR reveals sequence similarity with the common cytokine receptor gamma chain (γc; CD132). Functional TSLPRs are expressed by epithelial cells and a variety of hematopoietic cell types, including thymocytes, T cells, B cells, natural killer T cells, monocytes, macrophages, basophils, and dendritic cells (DC). Recent studies indicate that TSLP can activate multiple STAT (Signal Transducer and Activator of Transcription) signaling proteins. TSLP enhances the maturation and viability of DC. It strongly induces DC expression of the CD40 and CD80 costimulatory molecules and chemokines, e.g., TARC (Thymus and activation-regulated chemokine; CCL17) that can attract Th2 effector cells. TSLP supports B cell development. TSLP costimulates the proliferation of naïve T cells in the presence of mature DC. TSLP is also able to increase the sensitivity of T cell receptor-activated CD4+ T cells to low doses of IL-2. In the presence of TSLP, the acute myeloid leukemia-derived cell line, MUTZ-3, shows induced growth and reduced apoptosis. CRLF2 deregulated gene expression is thought to be involved in lymphoid transformation in B-cell precursor acute lymphoblastic leukemia. The 1F11/TSLPR antibody is reportedly a neutralizing antibody.



Flow cytometric analysis of human TSLP Receptor expression on human HEK-293 cells. *HEK-293 cells cotransfected with constructs coding for human TSLPR and IL-7Rα/CD127 were fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655) that was mixed 1:1 with 1x Dulbecco's Phosphate Buffered Saline. The cells were then frozen at -80°C for subsequent testing. The frozen cells were thawed, their freezing media was removed, and the cells were washed. The cells were then stained with either PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; Left Panel) or PE Mouse Anti-Human TSLPR antibody (Cat. No. 563149; Right Panel). The flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells. Histogram markers were set based on the Ig isotype control. Flow cytometry was performed using a BD LSRFortessa™ Cell Analyzer 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 with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

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Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554655	Fixation Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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