

Technical Data Sheet

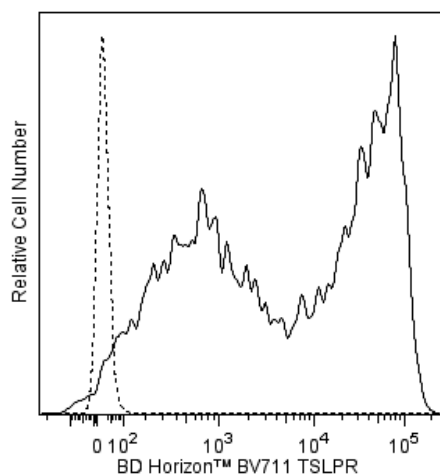
BV711 Mouse Anti-Human TSLP Receptor**Product Information**

Material Number:	563342
Alternate Name:	CRL2; CRLF2; CRLF2Y; Cytokine receptor-like factor 2; IL-XR; TSLPR
Size:	50 tests
Vol. per Test:	5 µl
Clone:	1F11/TSLPR (also known as 1F11 and AB81_85.1F11)
Immunogen:	Human TSLP Receptor Transfected Cell Line
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤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.

The antibody was conjugated to BD Horizon™ BV711 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. This dye is a tandem fluorochrome of BD Horizon™ BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon™ BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy™5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.



Flow cytometric analysis of human TSLP Receptor expression on human TSLPR-transfected 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). The cells were then frozen and stored at -80°C for subsequent testing. The frozen cells were thawed, their freezing media was removed, and the cells were washed with BD Pharmingen™ Stain Buffer (FBS) (Cat. No. 554656). The cells were then stained with either BD Horizon™ BV711 Mouse IgG1, κ Isotype Control (Cat. No. 563044; dashed line histogram) or BD Horizon™ BV711 Mouse Anti-Human TSLPR antibody (Cat. No. 563342; solid line histogram). The flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells. 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 with BD Horizon™ BV711 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV711 were removed.

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Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
563044	BV711 Mouse IgG1, k Isotype Control	50 µg	X40

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-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Cy is a trademark of Amersham Biosciences Limited.
9. Brilliant Violet™ 711 is a trademark of Sirigen.

References

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