

100 µg

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human TSLP R in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 179134
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TSLP R Gly25-Lys231 Accession # Q9HC73
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.
	*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS			
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.			
Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was NS0/hTSLPR cells.		

PREPARATION AND STORAGE		
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.	
Stability & Storage	Protect from light. Do not freeze.	
	 12 months from date of receipt, 2 to 8 °C as supplied. 	

BACKGROUND

TSLP R, also named Delta (1) and CRLM-2 (2) (cytokine receptor-like module-2), was originally cloned as a novel type 1 cytokine receptor with similarity to the common gamma chain. It was subsequently identified to be a subunit of the cellular receptor for the IL-7-like cytokine TSLP and termed TSLP R (3). The human TSLP R cDNA encodes a 371 amino acid (aa) residue type 1 membrane protein with a 22 aa residue signal peptide, a 210 aa residue extracellular domain, a 20 aa residue transmembrane domain, and a 119 aa residue cytoplasmic domain (4, 5). The extracellular region contains two fibronectin type III-like domains and a WSXWSlike motif. The cytoplasmic domain contains a membrane-proximal box 1 motif that is known to be important for association with JAKs (4). Human TSLP R displays 39% identity to mouse TSLP R and 24% identity to the common gamma receptor (4). An alternatively spliced mRNA variant encoding a soluble TSLP R has also been reported in mouse (2). TSLP R expression is ubiquitous in the immune and hematopoietic cells, but is up-regulated in Th2-skewed cells. Cells expressing TSLP R alone bind TSLP with low affinity. Co-expression of TSLP R and IL-7 Rα is required for high-affinity TSLP binding and signal transduction (3-6). The TSLP R and IL-7 Rα are co-expressed primarily on monocytes and dendritic cells and at lower levels in lymphoid cells. TSLP has been shown to induce the release of T cell-attracting

chemokines from monocytes and enhance the maturation of CD11c⁺ dendritic cells (5)

References:

- 1. Fujio, K. et al. (2000) Blood 95:2204.
- 2. Hirovama, T. et al. (2000) Biochem, Biophys. Res. Commun. 272:224
- 3. Park, L.S. et al. (2000) J. Exp. Med. 192:659.
- 4. Tonozuka, Y. et al. (2001) Cytogenet. Cell Genet. 93:23.
- 5. Reche, P.A. et al. (2001) J. Immunol. 167:336
- 6. Pandey, A. et al. (2000) Nat. Immunol. 1:59

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