

## DESCRIPTION

|                                     |   |         |   |
|-------------------------------------|---|---------|---|
| <b>Source</b>                       | Mouse myeloma cell line, NS0-derived human TSLPR protein  |         |   |
|                                     | Human TSLPR<br>(Gly25-Lys231)<br>Accession # Q9HC73.1   | DIEGRMD | Human IgG <sub>1</sub><br>(Pro100-Lys330) |
|                                     | N-terminus  |         | C-terminus                                |
| <b>N-terminal Sequence Analysis</b> | Gly25   |         |   |
| <b>Structure / Form</b>             | Disulfide linked homodimer.<br>Labeled with Alexa Fluor® 488 via amines<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm |         |   |
| <b>Predicted Molecular Mass</b>     | 51 kDa (monomer)  |         |   |

## SPECIFICATIONS

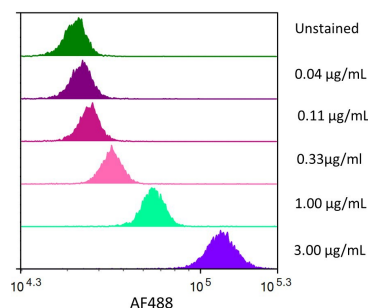
|                        |   |
|------------------------|---|
| <b>SDS-PAGE</b>        | 65-75 kDa, reducing conditions.   |
| <b>Activity</b>        | Measured by flow cytometry for its ability to bind anti-human TSLPR Monoclonal Antibody conjugated beads. The concentration of Recombinant Human TSLPR Fc Chimera Alexa Fluor® 488 (Catalog # AFG981) that produces 50% of the binding response is 0.10-1.00 µg/mL. |
| <b>Endotoxin Level</b> | <1.0 EU per 1 µg of the protein by the LAL method.  |
| <b>Purity</b>          | >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.  |
| <b>Formulation</b>     | Supplied as a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.   |

## PREPARATION AND STORAGE

|                                |   |
|--------------------------------|---|
| <b>Shipping</b>                | The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.   |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 6 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after opening.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after opening.</li> </ul> |

## DATA

### Flow Cytometry



**Flow cytometry analysis for Recombinant Human TSLPR Fc Chimera Alexa Fluor® 488 staining on anti-human TSLPR Monoclonal Antibody conjugated beads.** Streptavidin coated beads conjugated to biotinylated anti-human TSLPR Monoclonal Antibody were stained with the indicated concentrations of Recombinant Human TSLPR Fc Chimera Alexa Fluor® 488 (Catalog # AFG981).

### BACKGROUND

TSLPR, 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 TSLPR (3). The human TSLPR 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 WSXWS-like motif. The cytoplasmic domain contains a membrane-proximal box 1 motif that is known to be important for association with JAKs (4). Human TSLPR displays 39% identity to mouse TSLPR and 24% identity to the common gamma receptor (4). An alternatively spliced mRNA variant encoding a soluble TSLPR has also been reported in mouse (2). TSLPR expression is ubiquitous in the immune and hematopoietic cells, but is up-regulated in Th2-skewed cells. Cells expressing TSLPR alone bind TSLP with low affinity. Co-expression of TSLPR and IL-7 R $\alpha$  is required for high-affinity TSLP binding and signal transduction (3-6). The TSLPR and IL-7 R $\alpha$  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<sup>+</sup> dendritic cells (5).

### References:

1. Fujio, K. *et al.* (2000) *Blood* **95**:2204.
2. Hiroyama, T. *et al.* (2000) *Biochem. Biophys. Res. Commun.* **272**:224.
3. Park, L.S. *et al.* (2000) *J. Exp. Med.* **192**:659.
4. Tono-zuka, 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.

### PRODUCT SPECIFIC NOTICES

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