Recombinant Human TSLPR Fc Chimera Alexa Fluor® 647

Catalog Number: AFR981

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived human TSLPR protein

Human TSLPR (Gly25-Lys231) Accession # Q9HC73.1	DIEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis

Gly25

Structure / Form

Disulfide linked homodimer.
Labeled with Alexa Fluor® 647 via amines.
Excitation Wavelength: 650 nm
Emission Wavelength: 668 nm

Predicted Molecular Mass

51 kDa (monomer)

SPECIFICATIONS

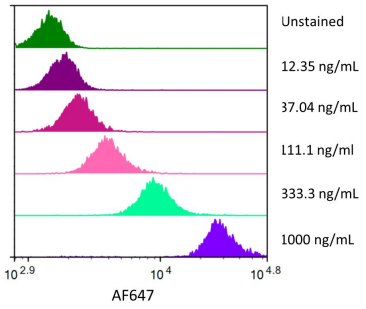
SDS-PAGE	65-75 kDa, reducing conditions.
Activity	Measured by flow cytometry for its ability to bind anti-human TSLPR Monoclonal Antibody conjugated beads.The concentration of Recombinant Human TSLPR Fc Chimera Alexa Fluor® 647 (Catalog # AFR981) that produces 50% of the binding response is 5.00-50.0 ng/mL
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	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

Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 6 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after opening. • 3 months, -20 to -70 °C under sterile conditions after opening.

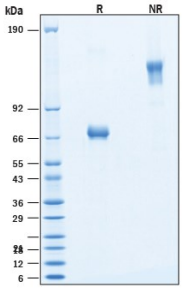
DATA

Flow Cytometry



Flow cytometry analysis for Recombinant Human TSLPR Fc Chimera Alexa Fluor® 647 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® 647 (Catalog # AFR981).

SDS-PAGE



Recombinant Human TSLPR Fc Chimera Alexa Fluor® 647 Protein SDS-PAGE. 2 µg/lane of Recombinant Human TSLPR Fc Chimera Alexa Fluor® 647 Protein (Catalog # AFR981) was resolved with SDS-PAGE under reducing (R) and nonreducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 65-75 kDa and 130-150 kDa, respectively.

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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 Rα is required for high-affinity TSLP binding and signal transduction (3-6). The TSLPR 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. Hiroyama, 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.

PRODUCT SPECIFIC NOTICES

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