

Active Recombinant Human CRLF2 protein, Fc/Avi-tagged, Biotinylated

Cat. No. CRLF2-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human CRLF2(Gly25 & Val30-Lys231) protein, fused to Fc/Avi tag at the C-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Gly25 & Val30-Lys231
Description	Thymic stromal lymphopoietin receptor (TSLPR), also known cytokine receptor-like factor 2(CRLF2) and IL-XR, is a member of the type 1 cytokine receptor family. TSLPR has been identified most closely related to the common gamma chain (gamma c) and, when complexed with interleukin 7 receptor alpha (IL-7R alpha), forms a high affinity complex for the IL-7-like cytokine TSLP (1-4). The extracellular domain (ECD) of human TSLPR contains two fibronectin type III-like domains and a WSXWS-like motif, which is necessary for proper protein folding (1-4). The cytoplasmic domain contains a membrane-proximal box 1 motif that is important for association with JAKs (1, 2). Human TSLPR shares 34% amino acid sequence identity with mouse TSLPR. An alternatively spliced mRNA variant encoding a soluble TSLPR has also been reported in mouse (5). In the signaling pathway of TSLP-TSLPR, which is similar to that of IL-7, TSLP activates the transcription factor signal transducer and activator of transcription 3 (STAT3), inducing the expression of common genes (4). TSLPR expression is ubiquitous in the immune and

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hematopoietic cells but is up-regulated in Th2-skewed cells (3, 4). Elevated expression of TSLP-TSLPR in bronchial mucosa has been associated with human asthma by acting as a susceptibility factor to generate Th2 allergic responses to antigens (4, 6). TSLP also is involved in Th2-mediated allergic skin inflammation by inducing Th2 cytokine secretion by T cells during the effector phase of allergic skin inflammation (4, 7). TSLP has been shown to induce the release of T cell-attracting chemokines from monocytes and enhance the maturation of CD11c+ dendritic cells (DC) (4). TSLP activated human DCs are also involved in the homeostatic proliferation of naïve and memory T cells in the absence of foreign antigens (4).

Predicted N Terminal	Gly25 and Val30
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	The biotin to protein ratio is greater than 0.7 as determined by the HABA assay. Measured by its binding ability in a functional ELISA. When Recombinant Human TSLP is immobilized at 0.5 µg/mL (100 µL/well), the concentration of Biotinylated Recombinant Human TSLP Fc Chimera Avi-tag that produces 50% of the optimal binding response is 0.75-7.5 ng/mL.
Molecular Mass	65-80 kDa, under reducing conditions
Endotoxin	<0.10 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.
Applications	Bioactivity

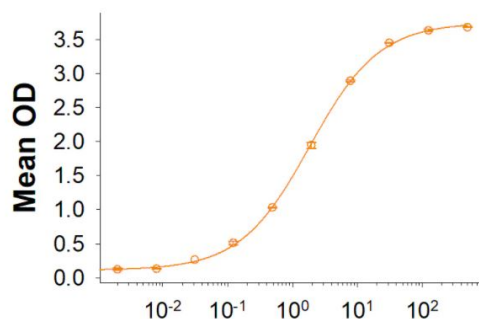
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 500 µg/mL in PBS.
Conjugation	Biotin
GENE INFORMATION	
Gene Name	CRLF2 cytokine receptor-like factor 2 [Homo sapiens]
Official Symbol	CRLF2
Synonyms	CRLF2; cytokine receptor-like factor 2; CRL2; TSLPR; IL-XR; TSLP receptor; P2RY8/CRLF2 fusion; cytokine receptor-like 2; cytokine receptor CRL2 precursor; thymic stromal lymphopoietin receptor; thymic stromal lymphopoietin protein receptor; thymic stromal-derived lymphopoietin receptor; CRLF2Y;
Gene ID	64109
mRNA Refseq	NM_001012288
Protein Refseq	NP_001012288
MIM	300357
UniProt ID	Q9HC73

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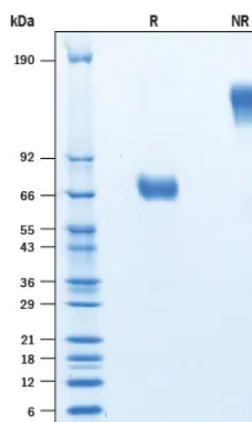
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Binding Activity



SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.