

Recombinant Human IL-17RA/IL-17R Avitag His-tag

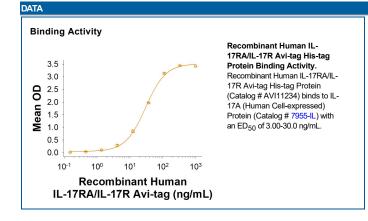
Catalog Number: AVI11234

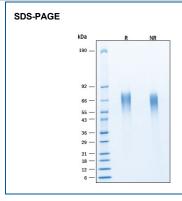
| DESCRIPTION Source | Human embryonic kidney cell, HEK293-derived human IL-17RA/IL-17R protein | | |
|-----------------------|--|---------|------------|
| | Human IL-17RA (Leu33-Trp320) Accession # Q96F46.2 | Avi-tag | 6-His tag |
| | N-terminus | | C-terminus |

N-terminal Sequence Leu33
Analysis
Structure / Form Biotinylated via Avi-tag
Predicted Molecular Mass

| SPECIFICATIONS | | |
|-----------------|--|--|
| SDS-PAGE | 63-69 kDa, under reducing conditions. | |
| Activity | Measured by its binding ability in a functional ELISA. Recombinant Human IL-17RA/IL-17R Avi-tag His-tag binds to IL-17A (Human Cell-expressed) Protein (Catalog # 7955-IL) with an ED ₅₀ of 3.00-30.0 ng/mL. | |
| Endotoxin Level | <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. | |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. | |

| PREPARATION AND STORAGE | | |
|-------------------------|--|--|
| Reconstitution | Reconstitute at 100 μg/mL in PBS. | |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. | |
| Stability & 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. | |





Recombinant Human IL-17RA/IL-17R Avi-tag His-tag Protein SDS-PAGE. 2 µg/lane of Recombinant Human IL-17RA/IL-17R Avi-tag His-tag Protein (Catalog # AVI11234) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 63-69 kDa, under reducing conditions.

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BACKGROUND

IL-17 R, also known as IL-17 RA, is a 120 kDa type I transmembrane glycoprotein protein that plays a central role in inflammatory responses (1-3). Mature human IL-17 R consists of a 288 amino acid (aa) extracellular domain, a 21 aa transmembrane segment, and a 525 aa cytoplasmic domain (4). The cytoplasmic domain contains a region homologous to the TIR domain of the TLR/IL-1 R family (5). Human IL-17 R shares 72% aa sequence identity with mouse and rat IL-17 R. Within the extracellular domain, it shares 18%-25% sequence identity with human IL-17 RB, C, D, and E. While the expression of IL-17 is restricted to activated T cells, IL-17 R exhibits a broad tissue distribution (4). Even in the absence of ligand, IL-17 R exists on the cell surface as a multimer (6). IL-17 R can bind IL-17 but must associate with IL-17 RC to transduce signals (7, 8). Interestingly, human IL-17 R does not appear to form productive complexes with mouse IL-17 RC (8). The IL-17 R can also signal in response to IL-17F (9). IL-17 R ligation promotes T cell activation and the production of IL-6, G-CSF, SCF, and multiple pro-inflammatory chemokines (4, 7, 9, 10). IL-17A and IL-17F synergize with TNF-α in the induction of CXCL1, G-CSF, and IL-6 (9, 11). This effect requires the presence of both TNF RI and TNF RII (9). IL-17 interactions with IL-17 R also inhibit the TNF-α induced up-regulation of fibroblast CCL5 and VCAM-1 (11). CCL5 and VCAM-1 induced effects are differentially sensitive to blockade with IL-17 R specific antibodies, suggesting that IL-17 R triggers divergent intracellular signals (11). In vivo, IL-17 R activity is important for increased generation of neutrophils and their recruitment to sites of inflammation (10, 12, 13). IL-17 R is required for host defense against microbial infection and for the progression of arthritis from inflammation to destructive joint erosion (10, 13). Our Avi-tag Biotinylated human IL-17R C chimera features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide.

References:

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