Recombinant Cynomolgus Monkey IL-17RA/IL-17R His-tag

Catalog Number: 11342-IR

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey IL-17RA/IL-17R protein Leu33-Trp320, with a C-terminal 6-His tag Accession # XP_005568119.1
N-terminal Sequence Analysis	Leu33
Predicted Molecular Mass	34 kDa

SPECIFICATIONS

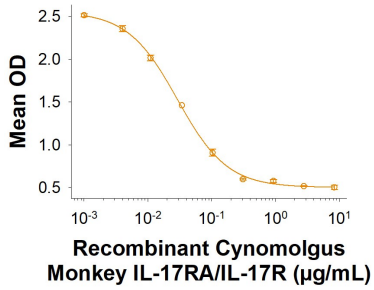
SDS-PAGE	59-67 kDa, under reducing conditions.
Activity	Measured by its ability to inhibit IL-17-induced IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells. The ED_{50} for this effect is 0.010-0.100 µg/mL in the presence of 10.0 ng/mL Recombinant Human IL-17 (Catalog # 7955-IL).
Endotoxin Level	<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 500 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.

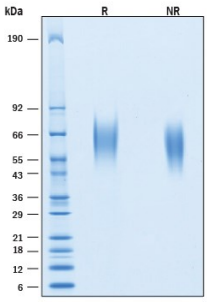
DATA

Bioactivity



Recombinant Cynomolgus Monkey IL-17RA/IL-17R His-tag Protein Bioactivity. Recombinant Cynomolgus Monkey IL-17RA/IL-17R His-tag Protein (Catalog #1 1342-IR) inhibits IL-17-induced IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells. The ED_{50} for this effect is 0.010-0.100 µg/mL in the presence of 10.0 ng/mL Recombinant Human IL-17 (Catalog # 7955-IL).

SDS-PAGE



Recombinant Cynomolgus Monkey IL-17RA/IL-17R His-tag Protein SDS-PAGE. 2 µg/lane of Recombinant Cynomolgus Monkey IL-17RA/IL-17R His-tag Protein (Catalog # 11342-IR) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 59-67 kDa.

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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 mouse IL-17 R consists of a 291 amino acid (aa) extracellular domain, a 21 aa transmembrane segment, and a 521 aa cytoplasmic domain (4). The cytoplasmic domain contains a region homologous to the TIR domain of the TLR/IL-1 R family (5). Within the extracellular domain, cynomolgus monkey IL-17RA shares 95% sequence identity with human IL-17RA. 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).

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