
Human IL-17A Recombinant Protein Carrier-Free

Catalog Number: 34-8179

Also known as: Interleukin-17A, IL17A

For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Human IL-17A Recombinant Protein Carrier-Free

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Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in sterile environment.

Source: E. coli expressed amino acids ile 20-ala 155 of mature human IL-17A accession # NM_002190

Molecular Mass: The methionylated polypeptide has a predicted molecular mass of 15,666. The DTT reduced protein migrates as a 15 kDa polypeptide. The protein is a cystine linked homodimer and migrates as a 27 kDa protein on non-reducing SDS-PAGE.

Purity: > 98% as determined by SDS-PAGE

Endotoxin: Less than 0.01 ng/ug cytokine as determined by the LAL assay.

Bioactivity: Measured by induction of IL-6 production by NHDF cells. The ED50 is 3.0 ng/mL, corresponding to a specific activity of 3.3 x 10e5 Units/mg.

Formulation: Sterile liquid: 0.1 M glycine, pH 3.0

Temperature Limitation: Store at less than or equal to -70°C.

Batch Code: Refer to vial

Use By: Refer to vial



 **LOT**



Description

Interleukin-17A (IL-17A) is a CD4+ T cell-derived cytokine that promotes inflammatory responses in cell lines and is elevated in rheumatoid arthritis, asthma, multiple sclerosis, psoriasis, and transplant rejection. The cDNA encoding human IL-17A was isolated from a library of CD4+ T cells; the encoded protein exhibits 72 percent amino acid identity with HVS13, an open reading frame from a T lymphotropic Herpesvirus saimiri, and 63 percent with mouse CTLA-8 (cytotoxic T-lymphocyte associated antigen-8). Human IL-17A exists as glycosylated 20-30 kD homodimers. High levels of IL-17A homodimer are produced by activated peripheral blood CD4+ T-cells. IL-17A enhances expression of the intracellular adhesion molecule-1 (ICAM-1) in human fibroblasts. Human IL-17A also stimulates epithelial, endothelial, or fibroblastic cells to secrete IL-6, IL-8, G-CSF, and PGE2. In the presence of human IL-17A, fibroblasts can sustain the proliferation of CD34+ hematopoietic progenitors and induce maturation into neutrophils. Mouse, rat, and human IL-17A can induce IL-6 secretion in mouse stromal cells, indicating that all homologs can recognize the mouse receptor. IL-17A binds to a receptor that binds also to HVS13 (viral IL-17) and to CTLA-8.

This recombinant protein is *E. coli* expressed. Insect cell expressed Human IL-17A Recombinant Protein (cat. 34-8180) is also available.

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Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.ebioscience.com • info@ebioscience.com

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Applications Reported

Recombinant human IL-17A is biologically active and can promote IL-6 production in vitro. The recombinant human IL-17A can be used as the standard for an IL-17A sandwich ELISA.

Applications Tested

The recombinant human IL-17A has been tested as the standard in a human IL-17A sandwich ELISA and in bioassay for induction of IL-6 production by NHDF cells. The ED₅₀ is 3.0 ng/ml, corresponding to a specific activity of 3.3 x 10⁵ Units/mg.

References

Dong C. Regulation and pro-inflammatory function of interleukin-17 family cytokines. Immunol Rev. 2008 Dec; 226: 80-6.

Gaffen SL. An overview of IL-17 function and signaling. Cytokine. 2008 Sep; 43(3): 402-7.

Roark CL, Simonian PL, Fontenot AP, Born WK, O'Brien RL. gammadelta T cells: an important source of IL-17. Curr Opin Immuno. 2008 Jun; 20(3): 353-7

Related Products

12-7178 Anti-Human IL-17A PE (eBio64CAP17)

13-7179 Anti-Human IL-17A Biotin (eBio64DEC17)

14-7178 Anti-Human IL-17A Purified (eBio64CAP17)

88-7876 Human IL-17A ELISPOT Ready-SET-Go!®

88-7976 Human IL-17A (Interleukin-17A, IL17A) ELISA Ready-SET-Go! Kit (See replacement item BMS2017)