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Product Data Sheet

Recombinant Human IL-17A (carrier-free)

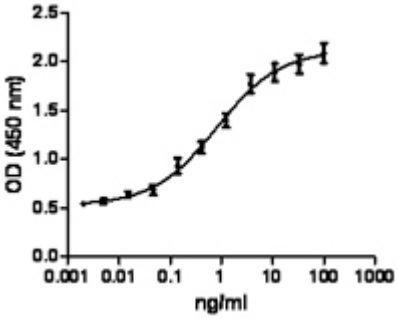
Catalog # / Size: 570502 / 10 µg
570504 / 25 µg
570506 / 100 µg
570508 / 500 µg

Source: Human IL-17A, amino acids Ile20-Ala155 (Accession # NM_002190) was expressed in *E. coli*.

Molecular Mass: The 137 amino acid N-terminal methionylated recombinant protein has a predicted molecular mass of 15,666 Da. This protein exists as a disulfide-linked homodimer. The DTT-reduced protein migrates at approximately 16kDa by SDS-PAGE. The non-reduced protein migrates as a homodimer, at approximately 28kDa by SDS-PAGE.

Purity: Purity is >98%, as determined by Coomassie stained SDS-PAGE.

Endotoxin Level: Endotoxin level is <0.1 EU/µg (<0.01ng/µg) protein as determined by the LAL method.



Induction of IL-6 in human dermal fibroblast by IL-17A.

Activity: The ED_{50} is 2 - 4 ng/ml, corresponding to a specific activity 5 - 2.5 x 10^5 units/mg, as determined by a dose dependent stimulation of normal human dermal fibroblasts production of IL-6.

Preparation: 10-100µg sizes are bottled at 200µg/ml. 500µg and larger sizes are bottled at the concentration indicated on the vial.

Formulation: 0.22 µm filtered protein solution is in 10mM NaH_2PO_4, 300mM NaCl, pH 7.2.

Storage: Unopened vial can be stored at -20°C for six months or at -70°C for one year. For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10µg/mL in buffer containing carrier protein such as 1% BSA or HSA or 10% FBS. For long term storage, aliquot into polypropylene vials and store in a manual defrost freezer. **Avoid repeated freeze/thaw cycles.**

Applications:

Applications: Bioassay

Description: IL-17A was initially identified from a subtracted cDNA library between closely related murine lymphoid cells and called CTLA-8, and share 58% homology with an open reading frame of the T-lymphotropic Herpesvirus Samirii virus (viral IL-17) (5). IL-17A belongs to a family of cytokines, which has five members; designated IL-17A-F. IL-17 is expressed by a unique lineage of CD4 T cells (Th17) that develop in response to IL-23, in particular under conditions in which Th1 and Th2 development are suppressed. IL-17A shares the greatest homology (55%) with IL-17F. Both IL-17A and IL-17F are produced by Th17 cells. IL-17A and IL-17F can either exist as IL-17A homodimers and IL-17F homodimers or as IL-17A-IL-17F heterodimers (6). IL-17 is a key mediator of autoimmune disorders, including rheumatoid arthritis, psoriasis, inflammatory bowel disease, and asthma, and plays a role in host defense (7).

Antigen References:

1. Yu J, *et al. Front Biosci* 13:170-177 2008.
2. Toy D, *et al. J. Immunol.* 177:36-39 2006.
3. Benghiat FS, *et al. Transplant Rev* 23:11-18 2009.
4. Honorati MC, *et al. Rheumatology* 40:522-527 2001.
5. Rouvier E, *et al. J. Immunol.* 150:5445-5456 1993.
6. Liang SC, *et al. J. Immunol.* 179:7791-7799 2007.
7. Ouyang W, *et al.* Immunity 28:454-467 2008.

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