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Product Data Sheet

Recombinant Human IL-17F (carrier-free)

Catalog # / Size: 570606 / 100 µg

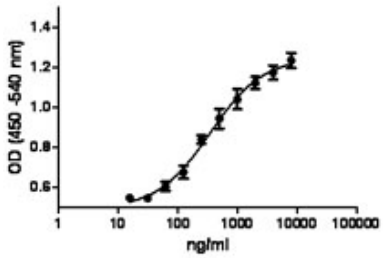
Source: Human IL-17F, amino acids Arg31-Gln163 (Accession # AF384857) was expressed in *E. coli.*

Molecular Mass: The 133 amino acid recombinant protein has a predicted molecular mass of 14903.1 Da. This protein exists as a disulfide-linked homodimer. The DTT-reduced protein migrates at approximately 15kDa by SDS-PAGE. The non-reduced protein migrates as a homodimer, at approximately 30kDa by SDS-PAGE.

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

Endotoxin Level: Less than 0.01ng per µg cytokine as determined by the LAL method.

Activity: ED50 =400 - 800 ng/ml, corresponding to a specific activity of 2.5 â€“ 1.25 x 10^3 units/mg, as determined by the dose dependent stimulation of CXCL1 production in human fibroblast.



CXCL1 induction in human fibroblast by human IL-17F

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

Formulation: 0.22 µm filtered protein solution is in PBS

Storage: Unopened vial can be stored at 4°C for three months, 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 10 µg/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-17F belongs to the IL-17 cytokine family which includes IL-17A, B, C, D, and E (also called IL-25). IL-17F shares the strongest homology to IL-17A. They share 50% amino acid sequence homology. The genes encoding IL-17 and IL-17F are localized in the same chromosomal region and are co-expressed by CD4+ and gamma delta T cells. Recently, an IL-17–IL-17F heterodimer was found to be expressed in Th17 cells together with IL-17 and IL-17F homodimers. Similar to IL-17, IL-17F utilizes IL-17RA and IL-17RC as its receptor and employs Act1 and TRAF6 as its signal transducers to induce the expression of pro-inflammatory cytokines and chemokines in many different cell types. IL-17F expression is upregulated in inflammatory bowel disease. A His161 to Arg161 (H161R) substitution in the third exon of the IL17F gene seems to be associated with asthma and chronic obstructive pulmonary disease (COPD) in Japanese subjects. In addition polymorphism of IL-17F seems to be associated to susceptibility to gastric cancer.

Antigen References:

1. Starnes T, *et al.* 2001 *J. Immunol.* 167:4137.
2. Kawaguchi M, *et al.* 2001 *J. Immunol.* 167:4430.
3. Hizawa N, *et al.* 2006 *Clin Experimental Allergy* 36:1109.
4. Seiderer J, *et al.* 2008 *Inflamm Bowel Dis* 14:437.
5. Wu X, *et al.* 2009 *Int J Cancer* PMID:19904747.

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