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Product Data Sheet

Recombinant Human IL-17A/F Heterodimer (carrier-free)

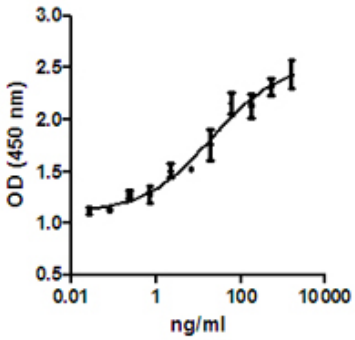
Catalog # / Size: 580602 / 10 µg
580604 / 25 µg
580606 / 100 µg
580608 / 500 µg

Molecular Mass: Recombinant hIL-17A/F is a disulfide linked heterodimer consisting of N-terminal methionylated hIL-17A and non-methionylated hIL-17F. The recombinant heterodimer has a predicted molecular mass of 30,552 Da. The DTT-reduced protein migrates as monomers, at approximately 16kDa by SDS-PAGE. The non-reduced protein migrates as a heterodimer, at approximately 31kDa by SDS-PAGE.

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

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

Activity: Activity was tested by induction of IL-6 in human skin fibroblasts by IL-17A/F. The ED50 is 15-25 ng/ml, corresponding to a specific activity of 6.6 - 4 x 10^4 units/mg. Under this assay the activity was comparable to other vendor's cytokine.



Induction of IL-6 in human skin fibroblast by IL-17A/IL-17F heterodimer.

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 10 mM NaH_2PO_4, 300 mM 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 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-17A/F is part of the IL-17 cytokine family which consists of six structurally related proteins (IL-17A, B, C, D, E, and F). IL-17A is expressed primarily by Th17 cells, a subset of CD4 T cells. IL-17F is most closely related to IL-17A. The two molecules share 50% aminoacid sequence homology. Like IL-17A, IL-17F mRNA and protein have been detected in Th17 cells. IL-17F and IL-17A exist as a homodimers, adopting a cysteine knot motif formed through the interactions of four cysteines, one of which is responsible for the interchain bonding. IL-17F and IL-17A can form both homodimeric and heterodimeric proteins when expressed in a recombinant system and all forms of the recombinant proteins have *in vitro* functional activity. In addition, activated human CD4-T cells produce the homodimers of IL-17F, IL-17A, and the IL-17F/IL-17A heterodimer.

Antigen References:
1. Chang SH, *et al. Cell Res* 17:435-440 2007.
2. Liang SC, *et al. JI* 179:7791-7799 2007.
3. Wright JF, *et al. J. Biol. Chem.* 282:13447-13455 2007.
4. Wright JF, *et al. J. Immunol.* 181:2799-2805 2008.
5. Fouser LA, *et al. Immunol. Rev.* 226:87-102 2008.

BioLegend Inc., 9727 Pacific Heights Blvd, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587