

# Interleukin-16

Human, Recombinant (rHuIL-16)

Expressed in *E. coli*

Cat. No. CRP0824

Lot. No. (See product label)

## PRODUCT INFORMATION

**Description:** IL-16 is a CD8<sup>+</sup> T cell-derived cytokine that induces chemotaxis of CD4<sup>+</sup> T cells and CD4<sup>+</sup> monocytes and eosinophils. Analysis by gel filtration suggests that, under physiological conditions, human IL-16 exists predominantly as a noncovalently linked multimer, but that some IL-16 may exist as a monomer. However, only the multimeric form appears to possess chemotactic activity, suggesting that receptor cross-linking may be required for activity. IL-16 also induces expression of IL-2 receptor (IL-2R) and MHC class II molecules on CD4<sup>+</sup> T cells. Human and murine IL-16 show significant cross-species reactivity.

**Amino-Acid Sequence:** 130aa (The sequence of the first five N-terminal amino acids was determined and was found to be Met-Pro-Asp-Leu-Asn.), non-glycosylated.

**M. W. :** 13,400 Da

**Recombinant:** Expressed in *E. coli*

**Purity:** >97% as determined by RP-HPLC, FPLC and SDS-PAGE.

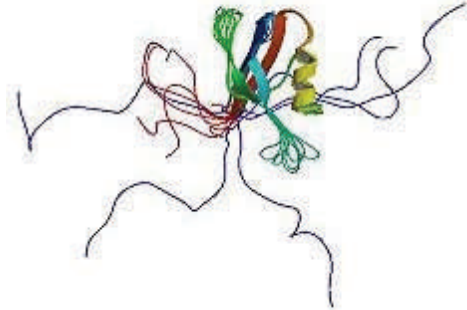
**Formulation:** rHuIL-16 was lyophilized from 1mg/ml solution after extensive dialysis against 20 mM acetic buffer, pH 5.0, 150 mM NaCl and 0.5 mM DTT.

**Specific Activity:** rHuIL-16 is fully biologically active when compared to standard. The ED50 as determined by its ability to chemoattract human CD4<sup>+</sup> T lymphocytes using a concentration range of 10.0-100.0 ng/ml, corresponding to a Specific Activity greater than  $1.0 \times 10^4$  IU/mg.

**Endotoxin:** Less than 0.1ng/μg (1 IEU/μg) determined by LAL test.

**Reconstitution:** It is recommended to reconstitute the lyophilized rHuIL-16 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

**Storage:** Lyophilized rHuIL-16 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuIL-16 should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid repeated freeze-thaw cycles.



[PDB](#) rendering based on 1i16.

## GENE INFORMATION

**Gene Name:** [IL16](#)

**Gene Alias:** FLJ16806, FLJ42735, FLJ44234, LCF, prIL-16

**Gene Type:** protein coding

**mRNA Refseq:** [NM\\_004513](#)

**Protein Refseq:** [NP\\_004504](#)

**MIM:** [603035](#)

**GeneID:** [3603](#)

**Chromosome Location:** 15q26.3

**Pathway:** immune response; induction of positive chemitaxis; leukocyte chemitaxis

**Function:** cytokine activity; protein binding

## REFERENCES

1. Wilson KC, Center DM, et al. The effect of interleukin-16 and its precursor on T lymphocyte activation and growth. *Growth Factors*. 2005; 22 (2): 97–104
2. Copeland KF. Modulation of HIV-1 transcription by cytokines and chemokines. *Mini reviews in medicinal chemistry*. 2006; 5 (12): 1093–10101
3. Rand TH, Cruikshank WW, et al. CD4-mediated stimulation of human eosinophils: lymphocyte chemoattractant factor and other CD4-binding ligands elicit eosinophil migration. *J. Exp. Med.* 1991;173 (6): 1521–1528

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