

#8923 Store at -20C

Mouse Interleukin-3 (mIL-3)



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MW (kDa):	UniProt ID:	Entrez-Gene Id:
16	#P01586	16187

Background

IL-3 is produced by T cells, mast cells and eosinophils (1). Target cells include hematopoietic progenitors, neutrophils, macrophages, mast cells, eosinophils, lymphoid and erythroid cells (1). IL-3 supports growth and differentiation and is used as a media additive to support culture of many cell types (1). The IL-3 receptor is a heterodimer of the IL-3 specific α -chain and the common β -chain, β_c , which is also used by GM-CSF and IL-5. (1). Binding of IL-3 can also involve substitution of the β_c by a β IL-3-chain that appears to be specific for IL-3 (1,2). Binding of IL-3 to its cognate receptor(s) induces activation of Jak2, phosphorylation of multiple Stats (1,3,5,6), and the PI3K/Akt pathway (1). IL-3 may play an important role in the development of airway inflammation associated with asthma (3,4,5).

Endotoxin

Less than 0.01 ng endotoxin/1 μ g mIL-3.

Purity

>98% as determined by SDS-PAGE of 6 μ g reduced (+) and non-reduced (-) recombinant mIL-3. All lots are greater than 98% pure.

Source / Purification

Recombinant mouse interleukin-3 (mIL-3) Ala27-Cys166 (Accession # NM_010556) was produced in *E. coli* at Cell Signaling Technology.

Bioactivity

The bioactivity of recombinant mIL-3 was determined in MC/9 and BaF3 cell proliferation assays. The ED₅₀ of each lot is between 2-50 pg/ml in MC/9 cells and 20-90 pg/mL in BaF3 cells.

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Background References

1. Reddy, E.P. et al. (2000) *Oncogene* 19, 2532-47.
2. Hara, T. and Miyajima, A. (1992) *EMBO J* 11, 1875-84.
3. Asquith, K.L. et al. (2008) *J Immunol* 180, 1199-206.
4. Schroeder, J.T. et al. (2009) *J Immunol* 182, 2432-8.
5. Munitz, A. et al. (2006) *J Immunol* 177, 77-83.

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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