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## Mouse Interleukin-3 (mIL-3)



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MW (kDa):	UniProt ID:	Entrez-Gene Id:
16	#P01586	16187
<b>Background</b>		
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 $\alpha$ -chain and the common $\beta$ -chain, $\beta_c$ , which is also used by GM-CSF and IL-5. (1). Binding of IL-3 can also involve substitution of the $\beta_c$ by a $\beta_{IL-3}$ -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).		
<b>Endotoxin</b>		
Less than 0.01 ng endotoxin/1 $\mu$ g mIL-3.		
<b>Purity</b>		
>98% as determined by SDS-PAGE of 6 $\mu$ g reduced (+) and non-reduced (-) recombinant mIL-3. All lots are greater than 98% pure.		
<b>Source / Purification</b>		
Recombinant mouse interleukin-3 (mIL-3) Ala27-Cys166 (Accession # NM_010556) was produced in <i>E. coli</i> at Cell Signaling Technology.		
<b>Bioactivity</b>		
The bioactivity of recombinant mIL-3 was determined in MC/9 and BaF3 cell proliferation assays. The ED <sub>50</sub> of each lot is between 2-50 pg/ml in MC/9 cells and 20-90 pg/mL in BaF3 cells.		
<b>Background References</b>		
1. Reddy, E.P. et al. (2000) <i>Oncogene</i> 19, 2532-47. 2. Hara, T. and Miyajima, A. (1992) <i>EMBO J</i> 11, 1875-84. 3. Asquith, K.L. et al. (2008) <i>J Immunol</i> 180, 1199-206. 4. Schroeder, J.T. et al. (2009) <i>J Immunol</i> 182, 2432-8. 5. Munitz, A. et al. (2006) <i>J Immunol</i> 177, 77-83.		

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