

## Murine IL-6

Murine Interleukin-6, recombinant

Synonyms: IFN- $\beta$ 2, BSF-2, HPGF, HSF, MGI-2, IL-6, Interleukin HP-1, B cell differentiation factor (BCDF), B-cell hybridoma growth factor.

**PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING**

Size	Order #	Lot #	Expiry Date
5 $\mu$ g	1525.960.005		
20 $\mu$ g	1525.960.020		
50 $\mu$ g	1525.960.050		
100 $\mu$ g	1525.960.100		
500 $\mu$ g	1525.960.500		
1 mg	1525.960.199		

Please enquire for bulk quantities and other vial sizes

### Description

Recombinant murine Interleukin-6 (IL-6) is a 21.7 kDa protein containing 188 amino acid residues. IL-6 is a pleiotropic cytokine that plays an important role in host defense by regulating immune and inflammatory responses. Produced by T cells, monocytes, fibroblasts, endothelial cells and keratinocytes, IL-6 has diverse biological functions. It stimulates B-cell differentiation and antibody production, synergizes with IL-3 in megakaryocyte development and platelet production, induces expression of hepatic acute-phase proteins, and regulates bone metabolism. IL-6 signals through the IL-6 receptor system, that consists of two chains IL-6R alpha and gp 130. Murine IL-6 is inactive on human cells, while both human and murine are equally active on murine cells.

- **Biological Activity**  $\geq 5 \times 10^7$  units/mg
- **Source** *E. Coli*
- **Purity**  $\geq 98\%$  (SDS-PAGE)
- **Endotoxin level**  $\leq 0.1$  ng/ $\mu$ g ( $\leq 1$  EU/ $\mu$ g)
- **Stabilizer** None
- **Buffer** None\*
- **Physical state** Sterile filtered, lyophilized

### Biological Activity

The ED<sub>50</sub> of  $\leq 0.02$  ng/ml was determined by the dose-dependent stimulation of the proliferation of the IL-6 dependent murine 7TD1 cells. It corresponds to a specific activity of  $\geq 5 \times 10^7$  units/mg.

### Reconstitution

We recommend a quick spin followed by reconstitution in sterile filtered water to a concentration of 0.1-1.0 mg/ml. **Do not vortex.** This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1 % BSA or HSA) and store in working aliquots at -20°C to -80°C.

### Stability

Lyophilized Interleukin-6 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL6 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, order number: [2835.955.xyz](#) or [2835.958.xyz](#), or BSA, order number: [2835.919.xyz](#)). **Please avoid repeated freeze-thaw cycles.**

### Amino Acid Sequence

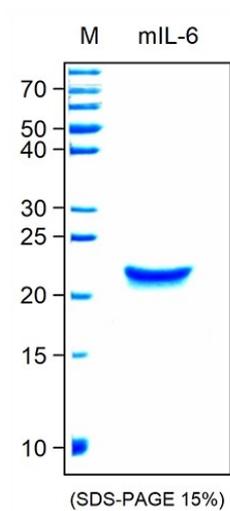
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 ORNDGICYQTG YNQEICLLKI SSSLLEYHSY LEYMKNLKD NKKDKARVLQ RDTETLIHIF NQEVKDLH KI  
 VLPTPISNAL LTKLESQKE WLRTKTIQFI LKSLEEF LKV TLRSTRQT

\*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

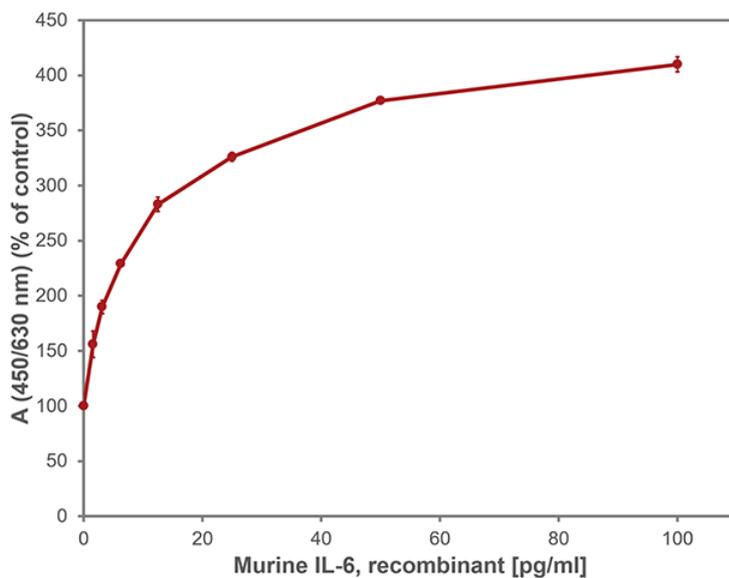
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**SDS-PAGE and Biological Activity of Murine IL-6**

**Fig. 1:** SDS-PAGE analysis of recombinant Murine IL-6. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions and stained with Coomassie blue.



**Fig. 2:** Murine IL-6 induced proliferation of mouse hybridoma cell line B9. The cells were stimulated using recombinant Murine IL-6. Values are the means ( $\pm$ SD) of triplicate determinations and expressed as percentage of control.

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

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