

## IL-6 Protein, Mouse

Cat. No.:	HY-P7063
Synonyms:	rMuIL-6; BSF-2; CDF; Hybridoma growth factor; IFN-beta-2
Species:	Mouse
Source:	E. coli
Accession:	P08505 (F25-T211)
Gene ID:	16193
Molecular Weight:	Approximately 21.7 kDa

### PROPERTIES

AA Sequence	<pre> F P T S Q V R R G D   F T E D T T P N R P   V Y T T S Q V G G L   I T H V L W E I V E M R K E L C N G N S   D C M N N D D A L A   E N N L K L P E I Q   R N D G C Y Q T G Y N Q E I C L L K I S   S G L L E Y H S Y L   E Y M K N N L K D N   K K D K A R V L Q R D T E T L I H I F N   Q E V K D L H K I V   L P T P I S N A L L   T D K L E S Q K E W L R T K T I Q F I L   K S L E E F L K V T   L R S T R Q T           </pre>
Biological Activity	<p>1. The ED<sub>50</sub> is &lt;0.02 ng/mL as measured by murine 7TD1 cells, corresponding to a specific activity of &gt;5 × 10<sup>7</sup> units/mg.</p> <p>2. Immobilized Mouse IL-6, His Tag at 5 µg/mL (100 µL/well) can bind Biotinylated Mouse IL-6 R alpha that produces 50% of the optimal binding response is found to be approximately ≤155.6 ng/mL.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized after extensive dialysis against PBS, pH 7.4 or 50 mM Tris-HCL, 200 mM NaCl, 500 mM arginine, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>Interleukin-6 (IL-6) is one of the most important mediators of the acute phase reaction in liver<sup>[1]</sup>. Interleukin 6 (IL-6), promptly and transiently produced in response to infections and tissue injuries, contributes to host defense through the stimulation of acute phase responses, hematopoiesis, and immune reactions. IL-6 promotes specific differentiation of naïve</p>
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CD4<sup>+</sup> T cells, thus performing an important function in the linking of innate to acquired immune response. IL-6, in combination with transforming growth factor (TGF)- $\beta$ , is indispensable for Th17 differentiation from naïve CD4<sup>+</sup> T cells, but that IL-6 also inhibits TGF- $\beta$ -induced Treg differentiation<sup>[2]</sup>.

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## REFERENCES

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- [1]. Frorath B, et al. Production of recombinant rat interleukin-6 in Escherichia coli using a novel highly efficient expression vector pGEX-3T. Send to
- [2]. Tanaka T, et al. IL-6 in inflammation, immunity, and disease. Cold Spring Harb Perspect Biol. 2014 Sep 4;6(10):a016295.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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