

# Cytokines

## Mouse Recombinant IL-6



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### Interleukin 6

Catalog #	78052.1	10 µg
	78052	100 µg
	78052.2	1000 µg

## Product Description

Interleukin 6 (IL-6) is a pleiotropic growth factor with a wide range of biological activities in immune regulation, hematopoiesis, and oncogenesis. IL-6 is produced by a variety of cell types including T cells, B cells, monocytes and macrophages, fibroblasts, hepatocytes, vascular endothelial cells, and various tumor cell lines. On its own or in combination with other factors such as IL-2 and interferon- $\gamma$ , IL-6 stimulates the proliferation of B cells, T cells, and hybridoma cells (Nordan et al.; Van Snick et al.; Gaudie et al.; Mihara et al.; Tanaka et al). In combination with cytokines such as IL-3, GM-CSF, and SCF, IL-6 has been shown to promote hematopoietic progenitor cell proliferation and differentiation in vitro. IL-6 signals through a cell surface type I cytokine receptor complex consisting of the ligand-binding IL-6 $\alpha$  (CD126) and the signal-transducing gp130 subunits. The binding of IL-6 to its receptor system includes activation of the JAK/STAT signaling pathway (Mihara et al.; Peters et al.; Tanaka et al.).

## Product Information

Alternative Names:	B cell differentiation factor, BSF-2, IFN- $\beta$ 2, Interleukin-6
Accession Number:	P08505
Amino Acid Sequence:	MFPTSQVRRG DFTEDTTPNR PVYTTSQVGG LITHVLWEIV EMRKELCNGN SDCMNNDAL AENNLKLPEI QRNDGCYQTG YNQEICLLKI SSSLLEYHSY LEYMKNNLKD NKKDKARVLQ RDTETLIHIF NQEVKDLHKI VLPTPISNAL LTKLESQKE WLRTKTIQFI LKSLEEFLLKV TLRSTRQT
Predicted Molecular Mass:	21.9 kDa
Species:	Mouse
Cross Reactivity:	Rat, Monkey
Formulation:	Lyophilized from a sterile-filtered aqueous solution containing 0.1% trifluoroacetic acid.
Source:	E. coli

## Specifications

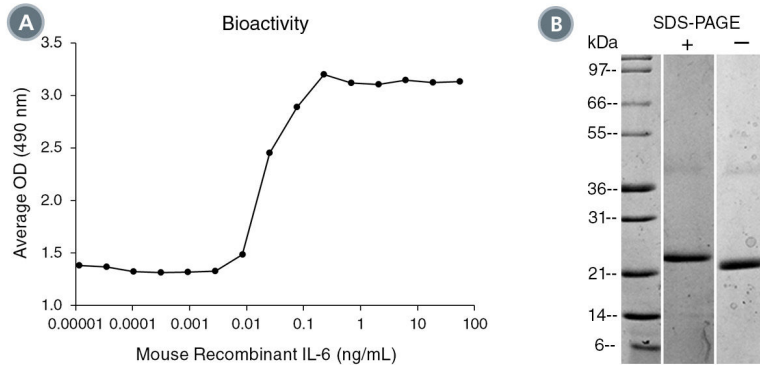
Activity:	The specific activity is $\geq 1 \times 10^6$ units/mg ( $EC_{50} \leq 50$ pg/mL) as determined by cell proliferation assay using B9 cells.
Purity:	$\geq 95\%$
Endotoxin Level:	Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is $\leq 1$ EU/ $\mu$ g protein.

## Preparation and Storage

Storage:	Store at -20°C to -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Reconstitute the product in 10 mM hydrochloric acid to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex.

OPTIONAL: After reconstitution, if product will not be used immediately, dilute with concentrated bovine serum albumin (BSA) to a final BSA concentration of 0.1%. The effect of storage of stock solution on product performance should be tested for each application. As a general guide we recommend to not store at 2 - 8°C for more than 1 month or at -20°C to -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

## Data



(A) The biological activity of Mouse Recombinant IL-6 was tested by its ability to promote the proliferation of B9 cells. Cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC50 in the above example is 0.0217 ng/mL.

(B) 1  $\mu$ g of Mouse Recombinant IL-6 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Mouse Recombinant IL-6 has a predicted molecular mass of 21.9 kDa.

## Related Products

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## References

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