

Mouse IL-6

premium grade

10 µg	130-096-682
25 µg	130-096-684
100 µg	130-096-685
1000 µg	130-096-686

Contents

1. Description

- 1.1 Background information
- 1.2 Applications

1. Description

Components	Mouse IL-6, premium grade: Purified recombinant mouse interleukin 6.
Sizes	10 µg, 25 µg, 100 µg, 1000 µg.
Biological activity	The ED ₅₀ is ≤0.0025 ng/mL* corresponding to a specific activity of ≥4×10 ⁸ U/mg.
Primary structure	Single, non-glycosylated polypeptide chain without <i>E. coli</i> -derived N-terminal methionine (187 amino acid residues).
Molecular mass	21.7 kDa.
Source	Produced in <i>E. coli</i> .
Product format	Lyophilized from a filtered (0.2 µm) buffer solution.
Stabilizer	Mannitol and trehalose.
Purity	>97% as determined by SDS-PAGE analysis.
Endotoxin level	Low endotoxin (<0.1 EU/µg cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.
Storage	Lyophilized Mouse IL-6, premium grade should be stored at -20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at -20 °C or below. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended to reconstitute lyophilized Mouse IL-6 with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 100 µL. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline (PBS).

* The ED₅₀ is determined by proliferation assay using mouse 7TD1 cells. The proliferation assay was calibrated with the reference reagent for mouse IL-6 (NIBSC code 93/730) provided by the WHO/National Institute for Biological Standards and Control.

1.1 Background information

Interleukin 6 (IL-6), originally identified as a B cell differentiation factor, is a multifunctional cytokine that regulates immune responses, hematopoiesis, acute phase responses, and inflammatory reactions. It induces, for instance, the terminal maturation of activated B cells into antibody-secreting plasma cells and acts in synergy with IL-3 to support the proliferation of hematopoietic stem cells. IL-6 is produced by many cell types, such as monocytes, fibroblasts, endothelial cells, and T cells. Disturbed IL-6 production has been associated with pathological processes, including inflammatory autoimmune diseases and cancer.

1.2 Applications

Mouse IL-6 can be used for a variety of applications, including:

- Induction of colony formation from hematopoietic progenitor cells in semi-solid medium.
- Replacement of feeder cells in the preparation of mouse and human hybridomas.
- *In vitro* differentiation of Th17 cells.
- Cultivation of bone marrow cells for retroviral transduction.

Optimal concentration for a specific application should be determined by a dose-response experiment.

All protocols and data sheets are available at www.miltenyibiotec.com.

Warranty

The products sold hereunder are warranted only to be free from defects in workmanship and material at the time of delivery to the customer. Miltenyi Biotec GmbH makes no warranty or representation, either expressed or implied, with respect to the fitness of a product for a particular purpose. There are no warranties, expressed or implied, which extend beyond the technical specifications of the products. Miltenyi Biotec GmbH's liability is limited to either replacement of the products or refund of the purchase price. Miltenyi Biotec GmbH is not liable for any property damage, personal injury or economic loss caused by the product.

MACS is a registered trademark of Miltenyi Biotec GmbH.

Unless otherwise specifically indicated, Miltenyi Biotec products and services are for research use only and not for diagnostic or therapeutic use.

Copyright © 2011 Miltenyi Biotec GmbH. All rights reserved.