For life science research only.
Not for use in diagnostic procedures.

Interleukin-2, mouse (mIL-2)
recombinant (*E. coli*)

Version: 17
Content Version: April 2021

Cat. No. 11 271 164 001 10,000 U
5 µg, 1 ml

Store product at −15 to −25°C.

1. General Information

1.1. Contents

Vial / Bottle	Cap	Label	Function / Description	Content
1	red	Interleukin-2, mouse (mIL-2) recombinant (*E.coli*)	▪ Solution, filtered through 0.2 µm pore size membrane. ▪ 10,000 U/ml (5 µg/ml) in PBS (phosphate buffered saline) and 1 mg/ml BSA (bovine serum albumin). *Purity of BSA: >99%, endotoxin (LAL): <1 EU/mg BSA.*	1 bottle, 1 ml

1.2. Storage and Stability

Storage Conditions (Product)

The product is shipped on dry ice.
When stored at −15 to −25°C, the product is stable through the expiration date printed on the label.

Vial / Bottle	Cap	Label	Storage
1	red	Interleukin-2, mouse (mIL-2) recombinant (*E.coli*)	Store in aliquots at −15 to −25°C. ⚠ ***Avoid repeated freezing and thawing.***

1.3. Application

Recombinant Interleukin-2, mouse produced in *E. coli* can be used in a variety of applications:
- Supports the growth of murine CTLL cells, but not that of human T cells.
- Strongly inhibits the binding of recombinant human IL-2 to murine responder cells, but only weakly inhibits the binding to human responder cells.
- Murine IL-2 shares identical biological and immunological activities with human IL-2 and is a convenient tool for extensive studies of the pharmacological and physiological activities of IL-2 in murine models.

2. How to Use this Product

2.1. Before you Begin

General Considerations

Primary structure

One polypeptide chain (149 amino acids), is identical to natural mouse IL-2, but not glycosylated.
Glycosylation is not essential for biological activity.

Working Solution

Dilute the concentrated Interleukin-2 solution (10,000 U/ml) with PBS or culture medium containing 1 mg/ml BSA or HSA (human serum albumin), or 1 to 10% serum (v/v).

2.2. Parameters

Molecular Weight

17,200 Da

Purity

≥95% pure as determined by SDS-PAGE.
Endotoxin level: ≤10 EU/ml (LAL).
1 EU corresponds to 0.1 ng.

Specific Activity

≥2 MU/mg
(hIL-2, NIBSC, 1st international standard, 86/504), at least the same specific activity (EC_{50}) compared to the indicated standard is guaranteed.
The biological activity of this product may vary in different in vitro applications. Determine the optimal concentration range for specific applications.

Specificity

Mouse IL-2 is effective on mouse cells, but not on human cells.

Unit Definition

EC_{50} definition

The amount of mIL-2 that is required to support half-maximal stimulation of cell proliferation (XTT cleavage) with CTLL-2 cells (1 unit equals ≤0.5 ng).

3. Additional Information on this Product

3.1. Test Principle

Interleukin-2 (IL-2, also known as T-Cell Growth Factor, TCGF) is a lymphokine produced by lectin- or antigen-activated T cells. It plays an important immunoregulatory role. This factor was first identified by its ability to promote the long-term *in vitro* proliferation of activated T cells. It also promotes the generation and proliferation of cytotoxic T cells, natural killer (NK) cells, and lymphokine-activated killer (LAK) cells. IL-2 also induces other lymphokines such as interferon-γ and B-Cell Growth Factor (BCGF-1).

Preparation

Recombinant murine interleukin-2 (IL-2) is produced in *E. coli* and purified by standard chromatographic methods.

3.2. Quality Control

For lot-specific certificates of analysis, see section **Contact and Support**.

4. Supplementary Information

4.1. Conventions

To make information consistent and easier to read, the following text conventions and symbols are used in this document to highlight important information:

Text convention and symbols	
Information Note: Additional information about the current topic or procedure.	
Important Note: Information critical to the success of the current procedure or use of the product.	
① ② ③ etc.	Stages in a process that usually occur in the order listed.
❶ ❷ ❸ etc.	Steps in a procedure that must be performed in the order listed.
* (Asterisk)	The Asterisk denotes a product available from Roche Diagnostics.

4.2. Changes to previous version

Layout changes.
Editorial changes.

4.3. Trademarks

All product names and trademarks are the property of their respective owners.

4.4. License Disclaimer

For patent license limitations for individual products please refer to:
List of biochemical reagent products.

4.5. Regulatory Disclaimer

For life science research only. Not for use in diagnostic procedures.

4.6. Safety Data Sheet

Please follow the instructions in the Safety Data Sheet (SDS).

4.7. Contact and Support

To ask questions, solve problems, suggest enhancements or report new applications, please visit our **Online Technical Support Site**.

To call, write, fax, or email us, visit **sigma-aldrich.com**, and select your home country. Country-specific contact information will be displayed.

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