# Guidelines for Use

**Product Name**: OptiLeukin™ 2
**Product Number**: 555OLK0070
**Format**: Lyophilized Powder
**Product Description**: Recombinant Human Interleukin 2, Animal-Origin-Free

CONTENTS




## 1. Product Description

OptiLeukin 2 is a high-purity, recombinant human interleukin-2 (rhIL-2) manufactured using a chemically defined, animal- and bacteria-free platform. Designed to minimize regulatory burden and simplify raw material qualification, it offers consistent bioactivity and lot-to-lot performance for immune cell expansion workflows. OptiLeukin 2 is ideal for GMP-compliant cell therapy, biomanufacturing, and immunotherapy development.

## 2. Reconstitution Instructions

1. Reconstitute lyophilized OptiLeukin 2 in sterile, cell culture–grade water to a final concentration of 100 µg/mL.
2. Mix gently by triturating—avoid forming foam or bubbles; **do not vortex**.
3. Allow full dissolution (2–5 minutes) and visually confirm that no powder remains in solution

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## 3. Handling & Storage

- Store lyophilized powder at 4°C, –20°C, or –80°C for up to 6 months, protected from light.
- Once reconstituted, aliquot and store at 4°C for up to 1 month or at –20°C or –80°C for up to 6 months.
- Avoid repeated freeze-thaw cycles.
- Do not expose to room temperature for extended periods post-reconstitution.

## 4. Suggested Concentration Range

- Adjust final concentration based on protocol and cell type requirements.

| Cell Type | Low | High |
|---|---|---|
| Pan T Cells | 100 IU/mL | 300 IU/mL |
| T regs | 100 IU/mL | 300 IU/mL |
| γδ T cells | 100 IU/mL | 200 IU/mL |
| NK cells | 400 IU/mL | 600 IU/mL |
| TILs | 6,000 IU/mL | 7,000 IU/mL |

## 5. Sterility & Filtration

- OptiLeukin 2 is 0.2 µm sterile filtered prior to lyophilization.
- Prepared in a chemically defined formulation suitable for cell culture applications.
- As with all cell therapy reagents, use aseptic technique and good laboratory practices when handling or preparing for use.

## 6. Application-Specific Notes

- Supports ex vivo expansion of T cells, Tregs, TILs, γδ T cells, and NK cells for use in advanced immunotherapy and cell therapy platforms.
- Compatible with serum-free, chemically defined systems across research and GMP workflows.
- Used in cell therapy, immune cell manufacturing, and iPSC-derived immune platforms.
- Scalable, regulatory-friendly alternative to E. coli– and HEK-derived IL-2.
- Designed for performance, reproducibility, and compliance in clinical and commercial biomanufacturing environments.

## 7. Regulatory Notes

- Animal-Origin-Free (AOF)
- Bacteria-Free
- Chemically Defined
- No adventitious virus or retrovirus testing required
- Reduced validation burden vs. E. coli– and HEK-derived IL-2
- Manufactured in cGMP Compliant, ISO 9001 Certified Facility
- Made in the USA

## 8. Additional Resources

- OptiLeukin 2 SDS
- OptiLeukin 2 Data Sheet
- OptiLeukin 2 Product Page