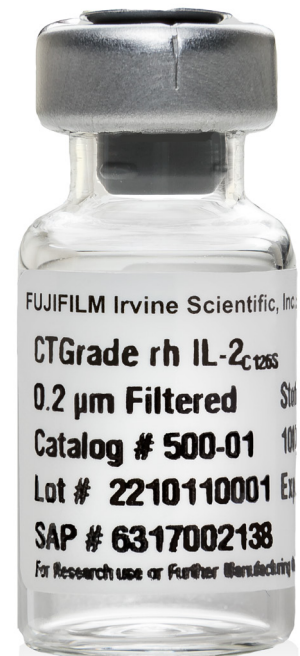


# Shenandoah CTGrade Recombinant Human IL-2<sub>C126S</sub>

Optimize Cell Proliferation and Function for Immunotherapy

CTGrade rh IL-2<sub>C126S</sub> is a recombinant human protein that is produced from *E. coli* and is designed to support basic, translational, and clinical research, as well as commercial applications, and offers:

- A core amino acid sequence and 126 C to S sequence of CTGrade rh IL-2 are identical to Proleukin
- High biological activity verified by a relevant bioactivity assay
- Low endotoxin levels
- ≥ 97% purity
- High lot-to-lot consistency



## Making the Right Decision the First Time

When designing robust cell and gene therapy processes, making the right decision the first time is critical for delivering therapies to market.

Shenandoah CTGrade interleukins and growth factors are formulated to reduce variability and ensure predictable workflow performance in the proliferation and differentiation of T cells, natural killer (NK) cells, B cells, and chimeric antigen receptor (CAR T) cells.

Together with our unparalleled regulatory guidance and assurance of expected performance, CTGrade interleukins and growth factors help cell and gene therapy developers proactively deliver the full promise of their discoveries.



# Achieve Predictable Workflows and Reduce Variability with CTGrade Interleukins and Growth Factors

The predictability and performance of CTGrade interleukins and growth factors help cell and gene therapy developers accelerate delivery of life-changing therapies to market.

The biological activity of CTGrade interleukins and growth factors is standardized, where applicable, to WHO International standards, providing cell and gene therapy developers consistent, lot-to-lot biological activity and performance.

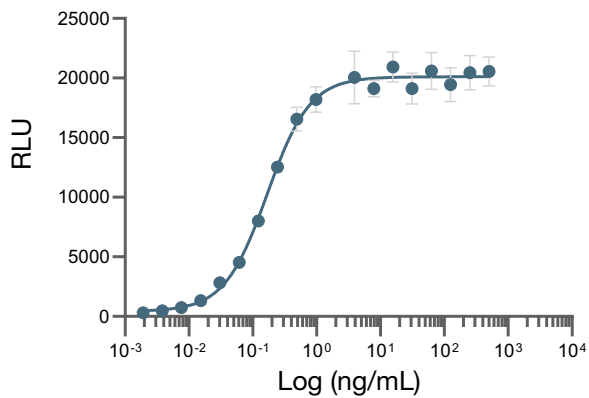
The CTGrade products are manufactured in a facility that does not use or process beta-lactam containing materials. No animal- or human-derived materials were used during manufacturing or as ingredients. These products are manufactured, tested, and released in an ISO 9001:2015 certified facility following cGMP practices. USP chapter <1043> for ancillary materials has been considered in the manufacture of these products.

IL-2<sub>C126S</sub> is an immunomodulatory cytokine that is produced by lymphocytes. IL-2<sub>C126S</sub> signals through the IL-2R receptor to induce activated T cell proliferation and promote T cell differentiation.

- Stimulates the proliferation and differentiation of B cells, natural killer (NK) cells, monocytes, and macrophages
- Promotes proliferation and differentiation of CAR T cells, T cells, and NK cells
- Activates and expands T cells and NK cells from peripheral blood

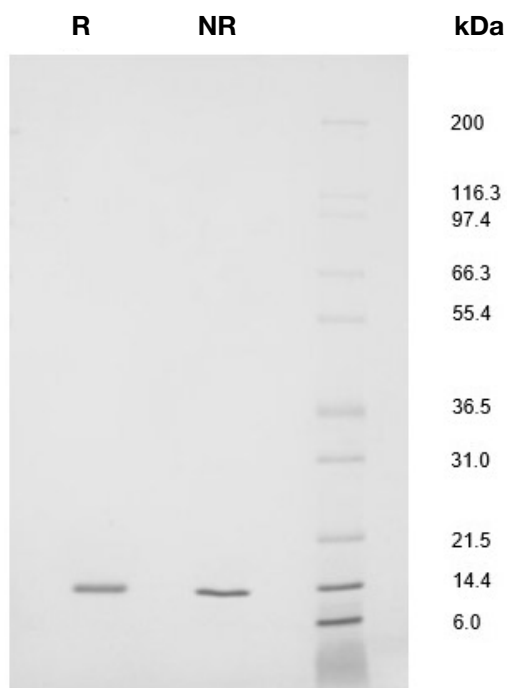
# Drive Scale-up Readiness with Performance-based Solutions

## Cell-Based Proliferation Assay



**Figure 1.** The biological activity of CTGrade rh IL-2<sub>C126S</sub> was determined in a CTLL-2 cell-based proliferation assay.

## SDS-PAGE Showing a Single Prominent Band at 14kDa



**Figure 2.** CTGrade rh IL-2<sub>C126S</sub> (1 µg) was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by InstantBlue™ staining showing a single prominent band at 14 kDa. Predicted MW is 15.5 kDa, but runs on SDS-PAGE at ~14kDa.

## Shenandoah CTGrade Recombinant Protein Ordering Information

| Product Description              | Catalog # | Size*                   | Additional Info              |
|----------------------------------|-----------|-------------------------|------------------------------|
| CTGrade rh IL-2 <sub>C126S</sub> | 500-01    | 50 µg<br>100 µg<br>1 mg | Provided in lyophilized form |

### Related Products

| Product Description            | Catalog # | Size* | Additional Info   |
|--------------------------------|-----------|-------|---|
| PRIME-XV T Cell CDM            | 91154     | 1 L   | Chemically defined, animal component-free formula<br>Does not contain antibiotics or phenol red |
| PRIME-XV T Cell Expansion XSFM | 91141     | 1 L   | Xeno-free and serum-free medium and contains<br>Gentamicin                                      |
| PRIME-XV NK Cell CDM           | 91215     | 1 L   | Chemically defined, animal component-free formula<br>Does not contain antibiotics or phenol red |

\* Custom sizes and packaging available on request.

To discuss your requirements, contact us at [getinfo@irvinesci.com](mailto:getinfo@irvinesci.com)  
Or visit our website at [www.irvinesci.com/contact-us](http://www.irvinesci.com/contact-us)



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