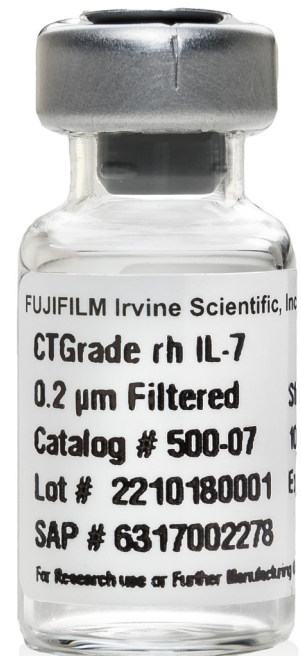


Shenandoah CTGrade Recombinant Human IL-7

Optimize Cell Proliferation and Function for Immunotherapy

CTGrade rh IL-7 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:

- High biological activity verified by a relevant bioactivity assay
- Low endotoxin levels
- $\geq 97\%$ 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-7 promotes the stimulation of multipotent (pluripotent) hematopoietic stem cells into lymphoid progenitor cells. IL-7 along with IL-2, 15, and 21 is a member of the common gamma (γ c) chain cytokine family.

- Secreted by bone marrow and thymic stromal cells, dendritic cells, intestinal epithelial cells, hepatocytes, and keratinocytes
- Signals through its receptor (IL-7R) to promote differentiation of hematopoietic stem cells into T cells, B cells, and natural killer cells
- Is a regulator of intestinal mucosal lymphocyte proliferation
- Promotes favorable phenotypes in adoptive cellular therapies such as CAR-T cell therapy when combined with IL-15

Drive Scale-up Readiness with Performance-based Solutions

Cell-Based Proliferation Assay

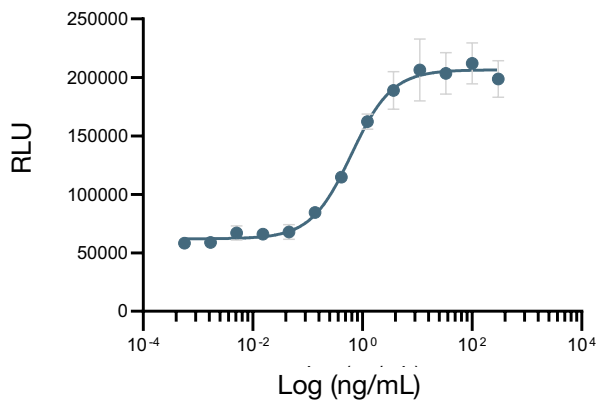


Figure 1. The biological activity of CTGrade rh IL-7 was determined in a PHA-stimulated human PBMC cell-based proliferation assay.

SDS-PAGE Showing a Prominent Band at 17.5 kDa

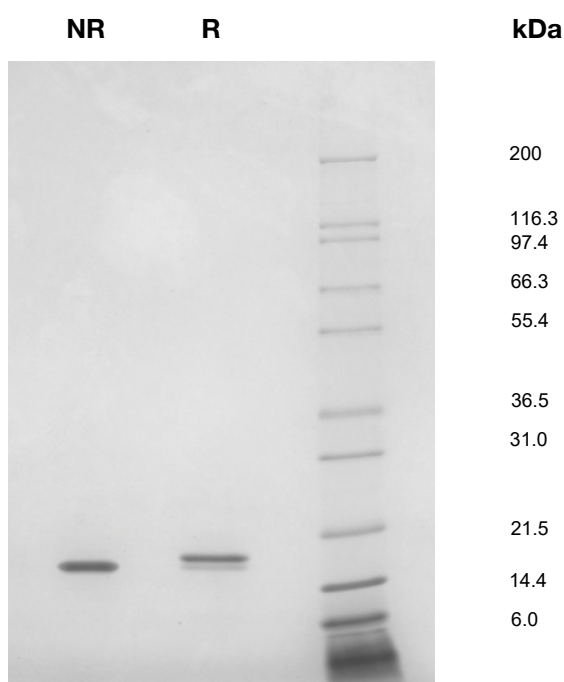


Figure 2. CTGrade rh IL-7 (1 µg) was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by InstantBlue™ staining showing a prominent band at 17.5 kDa.

Shenandoah CTGrade Recombinant Protein Ordering Information

Product Description	Catalog #	Size*	Additional Info
CTGrade rh IL-7	500-07	50 µg 100 µg 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 Does not contain antibiotics or phenol red
PRIME-XV T Cell Expansion XSFM	91141	1 L	Xeno-free and serum-free medium and contains Gentamicin
PRIME-XV NK Cell CDM	91215	1 L	Chemically defined, animal component-free formula Does not contain antibiotics or phenol red
Water for Injection	9309	1 L	Bottle Packaging

* Custom sizes and packaging available on request.

To discuss your requirements, contact us at getinfo@irvinesci.com
Or visit our website at www.irvinesci.com/contact-us



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