Purified Human Interleukin-2

Catalog Number: 03-001-050

Lot Number: D0102

Product Description: Purified, native human Interleukin-2 (IL-2): Human T-Cell growth factor.

Unit Size: 50 ml

Expiration Date: 04-2014

Suspending Buffer: RPMI 1640 without phenol red, with 25 mM HEPES and 0.001% PEG8000

Production of TCGF: Human T-cell growth factor (TCGF) is prepared from pooled human blood leukocytes stimulated with purified phytohemagglutinin (PHA). Following induction with PHA, the leukocytes are incubated for 48 to 72 hours in RPMI 1640 and the crude TCGF fluids are harvested.

Purification: Crude TCGF fluids are clarified by centrifugation, purified by chromatographic methods and the purified TCGF is sterile filtered and aliquoted into vials.

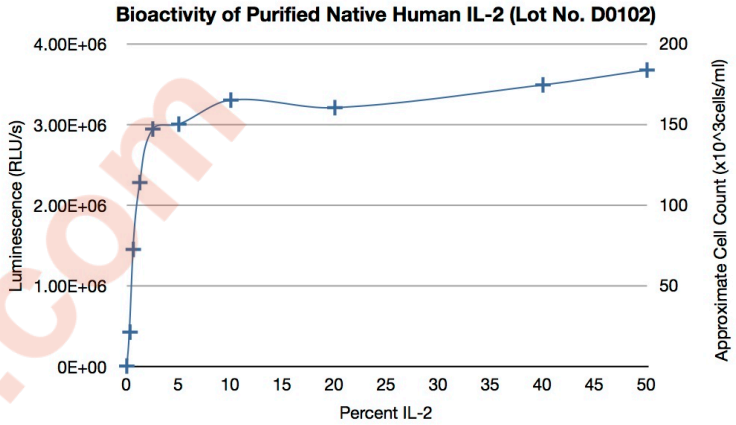
Procedure for use of TCGF:

1. Prepare isolated human T-lymphocytes from blood. Wash T-cells 3 times in RPMI 1640 with 10% fetal bovine serum.
2. Expose T-cells at a concentration of 1 x 10^6 cells/ml to a mitogen such as phytohemagglutinin (PHA) to activate the cells for TCGF-dependent growth *in vitro*. Incubate the activated cells 5 days at 37° C in 5% CO_2.
3. Wash the cells 3 times in RPMI 1640 with 10% fetal bovine serum. Resuspend the cells to a concentration of 5 x10^5 cells/ml in RPMI-1640, 10% fetal bovine serum, 10% TCGF, then, incubate culture at 37°C in 5% CO_2.
4. To split cultures, pellet cells and resuspend back to 4-6 x 10^5 cells/ml every 3-5 days using fresh RPMI 1640,10% fetal bovine serum, and 10% TCGF.
5. To establish long-term cultures of T-Lymphocytes, repeat step 4 as necessary.

QUALITY CONTROL DATA

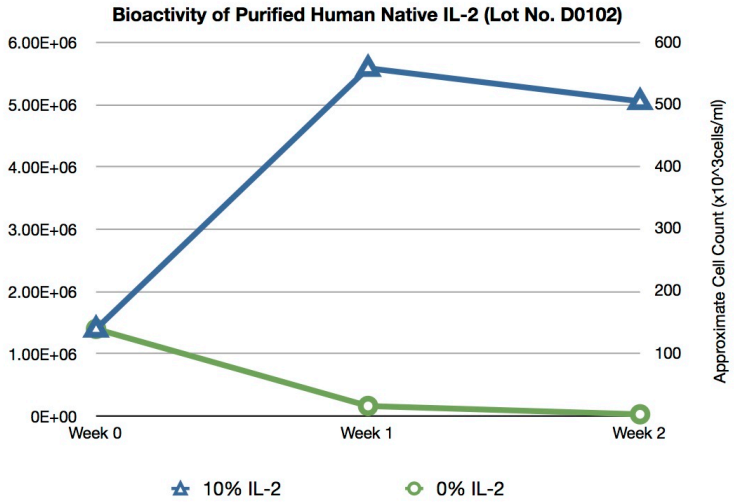
Sterility Tests: Bacteria, yeasts, fungi, and mycoplasma were not detected.

Biological Activity: The biological activity is determined by the dose-dependent proliferation of mouse CTLL-2 cells for 72 hours as measured by the luminescent cell viability assay (Celltiter Glo, Promega).[1,2]



IL-2 induced proliferation of CTLL-2 cells (seeded at 10^4 cells/ml) measured by luminescent cell viability assay (Promega - "Celltiter Glo")

The biological activity is also determined by culture of PHA-stimulated human PBMCs for 2 weeks and cell proliferation is measured by the luminescent cell viability assay (Celltiter Glo, Promega).



IL-2 induced proliferation of PHA stimulated Human PBMCs (seeded at 10^5 cells/ml) measured by luminescent cell viability assay (Promega - "Celltiter Glo")

PRODUCT DETAILS

Shipping and Storage: This product is shipped frozen on dry ice. **Store at -70°C upon receipt**. Avoid multiple freeze-thaw cycles as product degradation may result.

Safe Handling Recommendation: This biological preparation should be handled in accordance with biosafety guidelines defined in the BMBL, NIH-CDC HHS Publication No. 93-8395.

References:

1. Weston L, Geczy A, Farrell C. A convenient and reliable IL-2 bioassay using frozen CTLL-2 to improve the detection of helper T lymphocyte precursors. *Immunology and Cell Biology* 1998; 76, 190-192.
2. Gearing AJH, Thorpe R. The international standard for human interleukin-2. *Journal of Immunological Methods* 1988; 114, 3-9.

This product is for research use only.
Not for use in human or diagnostic procedures.

Quality Control — Date: 05/06/2013

ADVANCED BIOTECHNOLOGIES INC

CERTIFICATE OF ANALYSIS

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