

Interleukin-2, human (Aldesleukin)

Recombinant, expressed in *Escherichia coli* (*E.coli*)

For research use only. Not intended for diagnostic or therapeutic procedures.

Cat. No.: IL2.160606.1 (1 x 10⁴ IU/ml)
 IL2.160606.2 (1 x 10⁵ IU/ml)
 Lot: (see product label)
 Quantity: 1 vial contains 1 ml recombinant human IL-2

Synonyms: T-cell growth factor (TCGF), lymphokine, IL-2, aldesleukin

Description: This recombinant human interleukin-2 (rhIL-2, Aldesleukin) is an immunomodulatory cytokine with a molecular weight of approximately 15 kDa. Aldesleukin differs from the natural Interleukin-2: Aldesleukin does not have an N-terminal alanine, the amino acid cysteine at position 125 is substituted by serine and the molecule is not glycosylated. The biological activity of the recombinant IL-2 is similar to that of the native human IL-2. Interleukin-2 is important for proliferation of T and B lymphocytes and stimulates differentiation of B-cells, NK cells, lymphokine-activated killer cells, monocytes, macrophages and oligodendrocytes.

Components: Bioactive recombinant human interleukin-2 in RPMI 1640 medium supplemented with human serum albumin (HSA). If necessary, dilution is recommended in media supplemented with HSA, BSA or FCS.

Source: Aldesleukin was produced by recombinant DNA technology using a genetically engineered *E.coli* strain.

Bioactivity: The specific activity corresponds to a value > 6 x 10⁶ IU/mg. The activity was determined by a dose dependent proliferation of the murine cytotoxic T-cell line CTLL-2 and is expressed relative to the 2nd WHO International Standard for Interleukin-2.

Applications: Recombinant human IL-2 can be used for the culture of IL-2-dependent cells and for activation of immune cells.
 Possible applications are:

- Cultivation of human and murine IL-2-dependent primary T-cells, T-cell lines and NK cells
- Proliferation of mitogen-activated T-lymphocytes and NK cells
- Establishment of human and murine thymocyte, splenocyte or peripheral blood lymphocyte derived T-cell lines
- Generation of human and murine lymphokine-activated killer (LAK) cells

Storage: rhIL-2 should be stored at -20°C or -80°C. Avoid repeated freeze-thaw cycles. If stored accordingly, this recombinant human Interleukin-2 is stable for at least 6 months.

References:

1. Olejniczak K, Kasprzak. **A. Biological properties of interleukin 2 and its role in pathogenesis of selected diseases - a review.** *Med. Sci. Monit.* 2008;14(10):RA179-A189.
2. Boyman O, Sprent J. **The role of interleukin-2 during homeostasis and activation of the immune system.** *Nat. Rev. Immunol.* 2012;12(3):180-190.
3. Fenwick BW1, Schore CE, O. B. **Human recombinant interleukin-2(125) induced in vitro proliferation of equine, caprine, ovine, canine and feline peripheral blood lymphocytes.** *Comp Immunol Microbiol Infect Dis.* 11, 51-60 (1988).

Further references on request from Research@immunservice.com

Additional products:

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| 1. Recombinant Human Interleukin-2 (rhIL-2)
expressed in CHO mammalian cells, glycosylated and non-glycosylated | Cat.No. IL2.130411.1-3 |
| 2. i2Cult IL-2 Complete Medium
- for the cultivation of IL-2-dependent cells | Cat.No. IL2.130411.4 |
| 3. WST-1 Cell Proliferation Kit (ready-to-use) | Cat.No. WST1.150813.1-3 |
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