

Recombinant human IL-6

E. coli expressed human interleukin-6 with HSA

Catalog # rcyec-hil6

For research use only, not for diagnostic or therapeutic use

Version # 15J23-MM

PRODUCT INFORMATION

Content:

- 10 µg of recombinant human IL-6 provided as a white lyophilized powder
- 1.5 ml endotoxin-free water

Storage and stability:

- Recombinant human IL-6 is shipped at room temperature. Upon receipt it should be stored at -20 °C.
- Upon resuspension, prepare aliquots of recombinant human IL-6 and store at 4 °C for 1 week or at -20 °C to -80 °C for 12 months.

Note: Avoid repeated freeze-thaw cycles.

Quality control

- Purity greater than 95% as determined by SDS-PAGE
- Endotoxin: Less than 0.1 EU/µg as determined by the LAL method.
- The biological activity has been confirmed using HEK-Blue™ IL-6 cells.

DESCRIPTION

Interleukin-6 (IL-6) is a multifunctional cytokine that plays an important role in the regulation of the immune response, hematopoiesis, and inflammation^{1,2}. IL-6 is secreted by many cell types, including endothelial cells, fibroblasts, osteoblasts and T cells. Furthermore, in response to specific microbial molecules, known as pattern recognition molecular patterns (PAMPs), macrophages can secrete IL-6 as a pro-inflammatory cytokine. IL-6 exerts its action by binding to the IL-6 receptor (IL-6R).

Recombinant human interleukin-6 (IL-6) is intended for use in cell culture applications. It is produced in *Escherichia coli*.

1. Akira S. et al., 1990. Biology of multifunctional cytokines: IL 6 and related molecules (IL 1 and TNF). FASEB J. 4(11):2860-7. 2. Kang S. et al., 2015. Therapeutic uses of anti-interleukin-6 receptor antibody. Int. Immunol. 27: 21-9.

CHARACTERISTICS

Source: *Escherichia coli*

Gene Name: IL6

Gene ID: 3569

UniProt ID: P05231

Molecular mass: ≈ 21 kDa

Formulation: Recombinant human IL-6 was lyophilized from a 0.2 µm filtered phosphate buffer solution (pH 7.4) containing human serum albumin (HSA).

Specific Activity: IL-6 is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of human TF-1 cells is less than 0.1 ng/ml, corresponding to a Specific Activity of 5 x 10⁷ IU/mg.

Solubility: 100 µg/ml in water

METHOD

Preparation of stock solution (100 µg/ml)

1. Add 100 µl endotoxin-free water (provided) to 10 µg of recombinant human IL-6.
2. Mix by pipetting. Do not vortex.
3. Prepare aliquots of recombinant human IL-6 and store at 4 °C for 1 week or at -20 °C to -80 °C for 12 months. Avoid freeze-thaw cycles.
4. Further dilutions can be prepared in the appropriate aqueous buffer, such as cell culture medium containing serum.

RELATED PRODUCTS

Product	Catalog Code
Anti-hIL-6-IgG	mabg-hil6-3
HEK-Blue™ IL-6 Cells	hkb-hil6

TECHNICAL SUPPORT

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