Product Information

HumanKine® Interleukin-4, Human

Recombinant, Expressed in HEK 293 cells

H7291

Storage Temperature –20 °C

Synonyms: IL-4, B cell stimulatory factor-1 (BSF-1), T cell growth factor-2 (TCGF-2), mast cell growth factor-2 (MCGF-2)

Product Description

HumanKine® IL-4, expressed in human 293 cells, is a glycosylated monomer with an apparent molecular mass of 13-19 kDa due to glycosylation, which is absent when this cytokine is expressed in *E. coli*. Production in human 293 cells offer authentic glycosylation. Glycosylation contributes to stability in cell growth media and other applications. Human and mouse IL-4 share a 50% amino acid sequence homology, but their biological actions are species specific. [2]

Interleukin-4 is a complex glycoprotein released by a subset of activated T cells, mast cells, and basophils.[1] It is a pleiotropic cytokine that has profound effects on the growth and differentiation of immunologically competent cells.[1] IL-4 regulates differentiation of naive CD4+ T cells to the TH2 type. IL-4 also regulates IgE and IgG1 production by B cells.

This product is lyophilized from 1.247 mg/mL of a 0.2 µm filtered solution in 1 X PBS.

EC_{50}: 0.07-0.4 ng/mL

The activity was determined by the dose-dependent simulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line).

Purity: >95% (SDS-PAGE)

Endotoxin level: <1 EU/µg by LAL method.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein at 0.2 mg/mL using sterile 1 X PBS + 0.1% human serum albumin.

Storage/Stability

Store the product at −20 °C. The lyophilized product remains active for 2 weeks at room temperature.

Upon reconstitution, the cytokine can be stored at 4 °C for 1 week, or at −20 °C to −80 °C in aliquots for 6 months. Avoid repeated freeze-thaw cycles.

References

1. Howard, M. et al., J. Exp. Med., 155, 914 (1982).
2. Yokota, T. et al., Immunol. Rev., 102, 139 (1988).

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