

CHASELECTION

Recombinant Human Interleukin-4/ IL-4

Catalog number: CY041F0XXX

Synonym: BCGF, BCDF, B cell stimulating factor (BSF-1)

Source: *E.coli*

Structure:

Gene ID: 3565

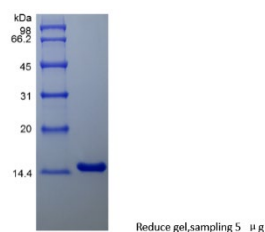
AA Sequence: MHKCDITLQE IIKTLNSLTE
QKTLCTELTV TDIFAASKNT TEKETFCAA
TVLRQFYSHH EKDTRCLGAT AQQFHRHKQL
IRFLKRLDRN LWGLAGLNSC PVKEANQSTL
ENFLERLTKI MREKYSKCSS

Calculated Molecular Weight: 15.1 kDa

Purity:

≥95 % as determined by SDS-PAGE & HPLC.

SDS-PAGE



Greater than 98% by SDS-PAGE gel and HPLC analyses

Endotoxin: <0.1 EU/μg

Formulation: PBS pH7.2

Bioactivity:

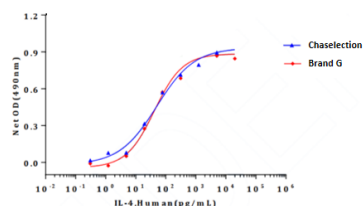


Figure 1. IL-4, Human induced cell growth of TF-1 cells

The result of the non-linear curve fitting was summarized as below.

The ED_{50} as determined by the dose-dependent stimulation of human TF-1 cells is ≤ 0.2 ng/ml, corresponding to a specific activity of $\geq 5 \times 10^6$ units/mg.

Reconstitution

1. Before opening, please briefly centrifuge the contents to the bottom;
2. It is recommended to initially dissolve in sterile deionized water to an appropriate concentration (recommended concentration is 0.2-1mg/ml);
3. If further dilution is required, it is recommended to dilute the solution with a solution containing carrier proteins (such as 0.1% BSA, 10% FBS, and 5% HSA).

Shipping & Storage:

The product is shipped with blue ice.

If long-term storage is required, this product should be stored at ≤ -20 °C

Please avoid repeated freeze-thaw cycles

1. Dry powder can be stored at ≤ -20 for at least 24 months.
2. After reconstitution, it can be stored for 1 month under sterile conditions at 2-8 °C .
3. After reconstitution, it can be stored for 12 months under sterile conditions at -20~ -70 °C.

Description:

IL-4 is a pleiotropic cytokine that regulates diverse T and B cell responses including cell proliferation, survival and gene expression. Produced by mast cells, T cells and bone marrow stromal cells, IL-4 regulates the differentiation of naive CD4⁺ T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, IL-10, and IL-13, which favor a humoral immune response. Another dominant function of IL-4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL-4 production by Th2 cells has been associated with elevated IgE production and allergy. Recombinant Human IL-4 is a 15.1 kDa globular protein containing 130 amino acid residues.

