Recombinant murine Interleukin-4 (rm IL-4)

Catalog No: #72104

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Description

Product Name	Recombinant murine Interleukin-4 (rm IL-4)
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	> 97 % by SDS-PAGE and HPLC analyses.
Species Reactivity	Ms
Target Name	rm IL-4
Other Names	B-cell IgG differentiation factor, B-cell growth factor 1, BSF-1, IGG1 induction factor, Lymphocyte stimulatory factor 1
Accession No.	accession:P07750 GeneID:16189
Uniprot	P07750
GeneID	16189;
Calculated MW	Approximately 13.5 kDa, a sing
SDS-PAGE MW	Sterile Filtered White lyophil
Target Sequence	MHIHGCDKNH LREIIGILNE VTGEGTPCTE MDVPNVLTAT KNTTESELVC RASKVLRIFY LKHGKTPCLK KNSSVLMELQ RLFRAFRCLD SSISCTMNES KSTSLKDFLE SLKSIMQMDY S
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, pH 7.4.
Storage	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze thaw cycles.

Background

Interleukin-4 (IL-4) is a pleiotropic cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. It is produced by mast cells, activated T cells and bone marrow stromal cells. It has many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of CD4+ T-cells into Th2 cells. In addition, IL-4 enhances both secretion and cell surface expression of IgE and IgG1 and also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. The mouse IL-4 has a compact, globular fold, stabilised by 3 disulphide bonds and contains 121 amino acids residues which is a single non-glycosylated polypeptide. The human IL-4 shares about 40% aa sequence identity with mouse rat IL-4 and they are species-specific in their activities.

References

1. Sokol CL, Barton GM, Farr AG, et al. 2008. Nat Immunol. 9:310-8.
2. Hershey GK, Friedrich MF, Esswein LA, et al. 1997. N Engl J Med. 337:1720-5.
3. Yokota T, Otsuka T, Mosmann T, et al. 1986. Proc Natl Acad Sci U S A. 83:5894-8.
4. Eder A, Krafft-Czepa H, Krammer PH. 1988. Nucleic Acids Res. 16:772.
5. Walter MR, Cook WJ, Zhao BG, et al. 1992. J Biol Chem. 267:20371-6

Note: This product is for in vitro research use only