

Recombinant Rat IL10

Cat No:HR2R2272

For research use only

Overview

Quantity	1.0 ?g
Gene Symbol	IL10
Gene ID	25325
Accession	P29456
Alternative Name	Cytokine synthesis inhibitory factor, CSIF Recombinant Rat Interleukin-10 (IL10)
Species	Rat
Source	E. coli
Description	IL-10 is produced by mouse Th2 cells following their stimulation by lectins. The main source for B cell derived IL-10 in mice are Ly1 B-cells that express CD5 (Ly1) and CD11. In humans IL-10 is produced by activated CD8(+) peripheral blood T cells, by T helper CD4(+) T cell clones after both antigen-specific and polyclonal activation, by B cell lymphomas, and by monocytes following cell activation by bacterial lipopolysaccharides and mast cells. IL-10 is a homodimeric protein with subunits having a length of 160 amino acids. Human Interleukin-10 shows 73% amino acid homology with mouse Interleukin-10. The murine IL-10 receptor has been cloned. This receptor is a protein of approximately 110 kDa that binds murine IL-10 specifically. This receptor is structurally related to receptors for IFN. The CD nomenclature for this receptor is CDw210. IL-10 inhibits the synthesis of a number of cytokines such as IFN-gamma, IL-2 and TNF-beta in Th1 T-helper subpopulations of T-cells but not of Th2 T-helper cells. This activity is antagonized by IL-4. The inhibitory effect on IFN- gamma production is indirect and appears to be the result of a suppression of IL-12 synthesis by accessory cells. In the human system, IL-10 is produced by, and down-regulates the function of, Th1 and Th2 cells.
Functions	The ED(50) was determined by the dose-dependent inhibition of antigen-specific T cell proliferation is less than 12 ng/mL.
Formulation	Recombinant rat Interleukin-10 was lyophilized from a 0.2 ?m filtered PBS solution.
Solubility	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Appearance	Lyophilized Powder
Molecular Weight	19
Purity	>95% as determined by SDS-PAGE
Concentration	<1.0 EU/?g of recombinant protein as determined by the LAL method.
Shipping Condition	Ambient Temperature

Storage
Condition

The lyophilized protein is stable for at least one year from date of receipt at -70°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2° - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

