



## Human Interleukin 10 (IL-10) Protein, Recombinant

### I. For sale

Product name	Catalog #	Package
Human Interleukin 10 (IL-10) Protein, Recombinant	P01P0054	10ug
		50ug
		100ug
		1mg

### II. Product Description

Other Names	CSIF; TGIF; GVHDS; IL-10; IL10A
Protein & NCBI Number	P22301, NM_000572.3
Host	E.coli
Express Region	1-178aa
Protein Length	Total length of the protein (including Tag)
Protein Sequence	MHSSALLCCLVLLTGVRASPGQGTQSENSCTHFPGNLPNMLRDL RDAFSRVKTFQMKDQLDNLLKESLLEDFKGYLGCCQALSEMIQFYLEEVMPPQAENQD PDIKAHVNSLGENLKLRLRLRRCHRFLPCENKSKAVEQVKNAFNKLQEKGIYKAMSE FDIFINYIEAYMTMKIRN
Molecular Weight	about 20.5kDa
Fusion Tag	6×His-SUMO (N-terminus)
Purity	≥95% SDS-PAGE
Physical Property	liquid or lyophilized powder
Reconstitution	Storage solution: We recommend using PBS or a suitable solvent according to the experimental requirements to prepare 1mg/mL storage solution, aliquot and store at -20 °C. Working solution: According to the experimental requirement, dilute Storage solution. The working solution can be stored at 4°C for 2-3 weeks after dilution.
Storage & Stability	The shelf life of liquid form is 6 months stored at -20 °C /-80 °C. The shelf life of lyophilized form is 12 months stored at -20 °C /-80 °C.
Applications	Antibody preparation, immunoassay (ELISA, WB), subcellular localization and interaction protein identification, etc.
Lead Time	5 to 10 business days; 2 to 3 days for stock products
Figure. SDS-PAGE	<p>The figure shows an SDS-PAGE gel with two lanes. Lane M contains molecular weight markers at 53, 41, 30, and 22 kDa. Lane 1 shows a single, prominent band at approximately 20.5 kDa, indicating the presence of the recombinant protein.</p>



### III. Storage and Transportation

Product is stable for up to twelve months from date of receipt under sterile conditions at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ . For optimal storage the lyophilized powder and protein stock solution should be aliquoted, and avoid freeze-thaw cycles.

### IV. Background

IL-10 is composed of 178 amino acids, produced by B cells, Th1, Th2 and other adaptive immune cells. IL-10 activates a wide range of macrophage/monocyte functions, including the synthesis of monocyte factors, NO production, and the expression of major histocompatibility complex class II (MHC II) costimulatory molecules such as IL-12 and CD80/CD86. The inhibitory effect of IL-10 on IL-1 and TNF is key to its anti-inflammatory activity, as these two cytokines often have synergistic effects on inflammatory pathways and processes, expanding the inflammatory response through secondary mediators such as chemokines, PGs, and PAF. Regulating the inflammatory response in the context of constant stress is important for a living organism.

IL-10 is a multifunctional cytokine that regulates the function of hematopoietic cells.

### V. References

1. Asadullah K, S terry W, Volk H D. In terleukin-10 therapy-review of a new approach. *Pharmacol Rev*, 2003, 55(2):241-269.
2. Goff W L, Johnson W C, Parish S M, Barrington G M, Elsasser T H, Davis W C, Valdez R A. IL-4 and IL-10 inhibition of IFN-gamma- and TNF-alpha-dependent nitric oxide production from bovine mononuclear phagocytes exposed to *Babesia bovis* merozoites. *Vet Immunol Immunopathol*. 2002;84(3-4):237-251.
3. Pousset F, Cremona S, Dantzer R, Kelley K W, Parnet P. IL-10 and IL-4 regulate type-I and type-II IL-1 receptors expression on IL-1 beta-activated mouse primary astrocytes. *J Neurochem*. 2001;79(4):726-736.